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ABSTRACT

An investigation was conducted for the purpose of creating a valid and reliable instrument that could serve the Nova University (Florida) Programs for Higher Education (PHE) central administrative and field staff in counseling new field-based doctoral students who have exhibited less positive or negative attitudes toward independent learning. Adult educational leaders were canvassed for advice on assessment instruments and strategy development. The components that make up a high independent learning style were first determined and eventually combined with attitude items (about 8 per component) to create the initial 79 item "Student Survey" instrument used to assess student attitudes toward independent learning. The completed survey given to 167 students (71% responded) was revealed, through factor analysis, to have construct validity. A final instrument, Adult Attitudes Toward Independent Learning Scale, was also shown to have a reliability coefficient of .94 using the Guttman split-half method. Recommendations were made for administering these assessment surveys during various student academic years and developing methods for determining predictive validity as well as detailed procedures to identify those students who hold low or negative attitudes toward independent learning. Appropriate interventions were encouraged in dealing with students with negative attitudes toward independent learning. Contains 61 references and the survey instruments are appended. (GLR)

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THE DEVELOPMENT OF AN INSTRUMENT TO ASSESS ATTITUDES TOWARD INDEPENDENT LEARNING OF ADULT STUDENTS

by

James P. Kole

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A Major Applied Research Project presented in partial fulfillment of the requirements for the degree of Doctor of Education

Nova University

August, 1987

HE 023 784

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Abstract of a Major Applied Research Project Presented to Nova University in Partial Fulfillment of the Requirements for the Degree of Doctor of Education

THE DEVELOPMENT OF AN INSTRUMENT TO ASSESS ATTITUDES TOWARD INDEPENDENT LEARNING OF ADULT STUDENTS

by

James P. Kole

August, 1987

The purpose of this investigation was to develop a valid and reliable instrument that may serve the Nova University Programs for Higher Education (PHE) central administrative and field staff in counseling new field-based doctoral students who have exhibited less positive or negative attitudes toward independent learning.

Data for this investigation were collected in several phases. The "1987 Summer Institute Professional/ Personal Skill Enhancement Programs Survey" (Kole, 1987) was conducted several months prior to the Nova University Programs for Higher Education Summer Institute in an attempt to determine the independent learning needs of all first and second year PHE doctoral students. The survey consisted of 17 independent learner skill areas that were rated by PHE students on a Likert-type five point scale with five indicating most interested and one indicating least interested. The overall mean of the 17 skill areas was

3.28, thus, indicating that most of the 129 PHE survey respondents agreed that the skill areas were important components of a high independent learning style. Several meetings with PHE students, faculty, cluster coordinators, major applied research project (MARP) advisors, research fellows, and Nova Central administrators resulted in the identification of ten a priori categories that served as components of a high independent learning style. The ten components were: (1) ambition, (2) creativity, (3) curiosity, (4) decisiveness, (5) enthusiasm, (6) flexibility, (7) goal orientation, (8) persistence, (9) self-confidence and (10) self-control. Attitude items (approximately eight items per component) were developed to form the initial 79 item "Student Survey" instrument used to assess the Nova University PHE student attitudes toward independent learning.

A survey was conducted with four recognized leaders in the field of adult education. Three questions were asked to elicit their opinions regarding the need to: (1) assess the attitudes toward independent learning of the adult students enrolled in the Nova University Programs for Higher Education field-based doctoral program, (2) to determine their awareness of any existing instrument that assesses the attitudes toward independent learning of adult students, and (3) to determine possible strategies that could be implemented to assist adult students in the Nova University PHE who score low on an instrument that assesses their

attitudes toward independent learning. The adult educators concluded that there was a need to assess the attitudes of Nova's PHE adult students toward independent learning. An instrument did exist that measured adult attitudes toward independent learning, however, it did not measure adult attitudes exclusively. The adult education leaders interviewed suggested strategies such as promoting the concept of independent learning via orientation programs, increased involvement of faculty and advisors with students, and the development and implementation of prerequisite independent learning skills programs for students identified as scoring low in their attitudes toward independent learning. An additional strategy was the identification of high independent learners in every cluster that could serve as role models for others who are not high independent learners.

The "Student Survey" (the initial instrument used to assess the Nova University PHE student attitudes toward independent learning) was mailed to 12 clusters throughout the nation. A total of 167 students were surveyed of which 119 students (71%) returned surveys.

A factor analysis (orthogonal varimax procedure) of the initial "Student Survey" instrument resulted in a univariate variance with 96 percent of the items describing one factor. An examination of the intercorrelations supported the univariate variance since the coefficients

were positive and in a majority of the cases high. As a result of the factor analysis, the instrument appears to have construct validity. A final instrument, Adult Attitudes Toward Independent Learning Scale (AATILS Questionnaire), comprised of 50 items was developed as a result of this procedure. This instrument was administered to 50 adult evening students enrolled in Nova College for the purpose of estimating reliability. The resulting reliability coefficient was .94 using the Guttman split-half method.

It was recommended that the instrument be administered to second year students during the Fall of 1987 in order to establish base-line data. Further, it was recommended that the instrument be administered to all first year students for the next three years. Methods for determining predictive validity were recommended and detailed procedures to identify those students who hold low or negative attitudes toward independent learning were outlined.

In addition, it was recommended that a report be sent to cluster coordinators who will be encouraged to implement counseling or other appropriate interventions in the case of those students who have low or negative attitudes toward independent learning. In addition to the PHE attempting to meet the learning needs of its adult student population, the instrument may also be appropriate for other adult students.

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Chapter 1

INTRODUCTION

Background and Significance

According to Knowles (1980:45) there is a cultural lag between childrens' capacity to take responsibility and the freedom that the adult world is willing to allow them.

> As children move up the educational ladder, they encounter more and more of the responsibility for their learning being taken by the teachers, the curriculum planner, and their parents. The net effect is to freeze them into self-concepts of dependency.

As the children continue to develop into adults and move through the educational system of elementary school, secondary school, and institutions of higher education, many individuals continue to lean toward a dependent learning style. Knowles (1980:46) states that adults have been conditioned

> by their previous schooling (under the pedagogical model) to perceive the appropriate role of learner to be that of a dependent, more or less passive recipient of transmitted content, that even though they may be completely self-directing in all other aspects of their lives, the minute they enter into any activity labeled "education," they sit back, fold their arms, and say, 'teach me.'

While it is obvious that not all college graduates and graduate students are independent learners, how many of the Programs for Higher Education students are independent learners and how many are not independent learners is an important question.

Traditional doctoral programs have residency requirements of one or two years, thus, providing the potential for significant interaction to occur between faculty and students. The Nova University Programs for Higher Education (PHE) field-based Ed.D. program, however, does not emphasize campus residency. Traditional doctoral program students meet regularly for on-campus classes, many live nearby or in the same on-campus housing facilities, and all experience numerous opportunities for group study or discussion. Because the Nova University PHE students are geographically isolated (for the most part) and reside throughout the United States and several foreign countries, an ability to be successful in independent learning is critical to their progress in the field-based doctoral program.

Purpose of the Investigation

The Nova University Programs for Higher Education central administrative staff recognizes that some students demonstrate high independent learning styles while the remainder demonstrate medium to low independent learning styles. Since the students, professors, cluster coordinators and research associates in the PHE field-based doctoral program are geographically isolated, and interaction between these constituents is infrequent, it is assumed that the most appropriate learning style for students to cultivate is that of the high independent learner. Therefore, the initial purpose of this

investigation was to identify the various attitudes toward learning held by newly enrolled adult students in the PHE in an attempt to predict the degree to which they would likely demonstrate an independent learning style throughout their enrollment in the program. In order to measure the various attitudes that relate to concepts of independent learning, a new survey instrument had to be developed that would be valid for PHE students. Thus, the major purpose of this investigation was to develop a valid and reliable instrument that may serve the Programs for Higher Education central administrative staff in counseling new students who have exhibited less positive or negative attitudes toward independent learning.

Justification of the Investigation

After reviewing literature pertaining to such topics as: independent learning (self-directed learning), attitudes toward learning, locus of control, field independence, field dependence, adult learning, and attrition of doctoral students, it became clear that this investigation regarding the attitudes of newly enrolled Nova University Programs for Higher Education doctoral students toward independent learning was appropriate. After several discussions with the PHE central staff regarding the attrition rate of the PHE field-based doctoral students and how the attrition rate (it is estimated to be in excess of 60 percent) may relate to the negative (less positive) attitudes of students toward independent learning--the topic

of this investigation was sanctioned as a major applied research project (MARP). In addition to the discussions with the PHE central administrative staff, a personal survey was conducted with recognized leaders in the field of adult education. The adult educators surveyed included the following:

1. Roger Andersen
   Vice President of Administrative Affairs
   Allegany Community College
   Cumberland, Maryland

2. Philip De Turk
   Director of Nova College
   Nova University
   Fort Lauderdale, Florida

3. Lucy Guglielmino
   Assistant Professor of Educational Leadership
   Florida Atlantic University
   Boca Raton, Florida

4. Peter Mills
   Dean, Evans College of Contemporary Studies
   University of Charleston
   Charleston, West Virginia

In addition, several unsuccessful attempts were made to contact Malcolm Knowles, author of numerous articles and books on adult education and self-directed learning. Three questions were asked of these adult educators. The questions were:

1. In your opinion, is there a need to assess the attitudes toward independent learning of the adult students enrolled in the Nova University Programs for Higher Education field-based doctoral program?

2. Are you aware of any instrument that assesses the attitudes toward independent learning of adult students?
3. Do you believe that there are strategies that can be implemented to assist adult students in the PHE who score low on an instrument that assesses their attitudes toward independent learning?

The answers to the three survey questions are paraphrased below:

1. In your opinion, is there a need to assess the attitudes toward independent learning of the adult students enrolled in the Nova University Programs for Higher Education field-based doctoral program?

Roger Andersen. Yes. It is obvious that there are differences in the attitudes of Nova's PHE adult students toward independent learning. Some are high level independent learners, some are medium level and others are more dependent on the instructors and the institution to guide them along.

Philip De Turk. Yes. In my role as a central staff reader for the major applied research project (MARP) I have had an opportunity to communicate with numerous PHE students. It appears that there is a wide spectrum of variation with regard to students' demonstration of independent learning. Some are high independent learners

but the majority seem to fall somewhere in the middle, and of course there are some low independent learners. A question should be raised that relates to the values of the learners: Should the PHE central administrative staff be imposing their values regarding independent learning on the students?

Lucy Guglielmino. Yes. Since my mentor was Malcolm Knowles and because of my own research on independent learning, I would certainly say that there is a need to assess the attitudes toward independent learning of adult students in the PHE.

Peter Mills. Yes. In my role as a part-time staff member of the Programs for Higher Education for the past nine years and having the experience of working with hundreds of PHE students, I must say there is a need to assess student attitudes on this topic. In my former role, I served as a cluster coordinator for the Philadelphia Cluster. Currently, I work for the Nova University PHE as a part-time MARP advisor. I am currently advising seven MARP students, four of which have had extensions beyond the seven year time limit for the doctoral program. The question that I raise now is: Are these adult students just too busy with their professional, personal, and civic lives or are they "dependent learners?" In my opinion, I would like to see PHE students demonstrating a greater independent learning style.

2. Are you aware of any instrument that assesses the attitudes toward independent learning of adult students?

Roger Andersen. No.

Philip De Turk. Yes. A faculty member of Florida Atlantic University, Lucy Guglielmino, developed an instrument that assesses independent learning. I am not aware of any other instrument that assesses the attitudes toward independent learning of adult students.

Lucy Guglielmino. Yes. I developed an instrument in 1977 that assesses a number of characteristics that I believe relate to the concept of independent learning. The instrument is entitled "The Self-Directed Learning Readiness Scale" and assesses the following characteristics of adult learners: attitudes, beliefs, tendencies, personality factors, and some prerequisite skills to independent learning. See Appendix A. Malcolm Knowles, a recognized expert in the field of adult education was my mentor and, therefore, had a significant influence on my research and, ultimately, the development of the instrument itself. This instrument, however, is not limited to the assessment of attitudes. Since the concept of independent learning is so complex, further research is required. As far as I am aware there is no instrument available that focuses strictly on assessing the attitudes of adult learners toward independent learning.

Peter Mills. No.

3. Do you believe that there are strategies that can be implemented to assist adult students in the PHE who score low on an instrument that assesses their attitudes toward independent learning?

Roger Andersen. Yes. As a first step, the PHE should try to promote the concept of independent learning by incorporating it in an orientation program for new students. The institution should play a major role in creating an awareness among students of exactly what independent learning is and how to acquire the skills necessary for independent learning. The PHE might even create a new course that would allow new students to increase their understanding and mastery of independent learning skills.

Philip De Turk. Yes. The Programs for Higher Education should take a more active role in encouraging student independent learning. The PHE faculty and advisors should increase their commitment and make themselves more available to the field-based students. In addition, the PHE central administrative staff should "mobilize the clusters" by empowering the cluster itself to develop its own learning support strategies. Since there are usually some high independent learners in every cluster, these students should become the role models for others who are not high independent learners.

Lucy Guglielmino. Because most adults have not been taught to be independent learners, the institution needs to

create an awareness among its students about what independent learning is. In my opinion there are several prerequisite skill competencies that are necessary for independent learning to occur. Skills in research (how to find information), problem solving, analytical skill, etc., are samples of some prerequisite skills necessary for independent learning. The institution needs to facilitate a "readiness" for self-directed or independent learning in its students. A comprehensive orientation program and advising program could help to create an awareness of the optimum independent learning style that is desired by the Programs for Higher Education. The idea of assessing the attitudes toward independent learning of newly enrolled adult students is a good starting point. I am currently working with a graduate student on the development of independent learning modules that aim to assist adults in acquiring the prerequisite skill competencies that are necessary for independent learning to occur.

All of the educators surveyed above are practitioners that have demonstrated broad knowledge in the field of adult education. Their answers to the survey questions listed previously support the development of the attitudinal instrument that is a component of this investigation.

The development of an instrument to assess the attitudes toward independent learning of adult students in the Programs for Higher Education should greatly assist the

PHE central administrative staff and field staff in designing and implementing intervention programs for students who are identified as having negative or less positive attitudes toward independent learning. These students could be individually counseled toward a high independent learning style. This central focus on student (human) development provides, perhaps, the greatest justification for conducting this investigation.

Demographic Characteristics of Nova University Programs for Higher Education Students

Pertinent characteristics of Nova University Programs for Higher Education students were compiled from 1979 to the present. These statistics were retrieved through the PHE central office and represent the work of former and current research fellows as indicated. Some of the data was compiled by reviewing PHE central office files (Collins, 1984) and other data was retrieved by the distribution of demographic questionnaires (MacFarland, 1984-1985 and Kibbee, 1986-87). This data was useful in understanding the various similarities and differences of the students that comprise the Programs for Higher Education. Demographic characteristics such as: sex, age, ethnic background, present professional position, marital status, etc., were examined in order to make inferences about the Programs for Higher Education students. In order to provide a clear perspective of the demographic characteristics of

the PHE students, pertinent descriptive data is presented in the following tables.

Considering sex as a student characteristic for the 513 students entering the Programs for Higher Education during the five year period between 1979 and 1984, 55.6 percent (285) were males and 44.4 percent (228) were females (see Table 1).

Table 1

Sex and Year of Entry of Programs for Higher Education Students 1979-1984

Year of Entry	Sex					
	Males		Females		Total	
	No.	%	No.	%	No.	%
1979-1980	26	44.1	33	55.9	59	100.0
1980-1981	70	61.4	44	38.6	114	100.0
1981-1982	47	54.7	39	45.3	86	100.0
1982-1983	63	55.3	51	44.7	114	100.0
1983-1984	79	56.4	61	43.6	140	100.0
Overall	285	55.6	228	44.4	513	100.0

Note. Data are from Collins (1984:44).

When comparing the PHE students' sex as a characteristic (Table 1) with nationally awarded doctorates

in education, Syverson (1983:6) presented the following percentages for 1981 and 1982: 1981, males, 52.8 percent, and females, 47.2 percent; 1982, males, 51.2 percent, and females 48.8 percent (see Table 2). The mean percentage by sex for PHE students between the years 1979 and 1984 was 55.6 percent for males and 44.4 percent for females. The result is that a parity exists between PHE students and nationally awarded Ed.D. students regarding sex.

Table 2

Number and Percentage of Males and Females Awarded Doctorates in Education at the National Level

	Males		Females		
Year	Number	%	Number	%	Total
1977	4,870	65.3	2,585	34.7	7,455
1978	4,339	60.3	2,855	39.7	7,194
1979	4,277	57.9	3,107	42.1	7,384
1980	4,202	55.4	3,383	44.6	7,585
1981	3,956	52.8	3,539	47.2	7,495
1982	3,701	51.2	3,525	48.8	7,226

Note. Data are from Syverson (1983:6).

In addition, similar percentages were found for Nova University Programs for Higher Education students who were enrolled during the academic year 1984-1985: males, 50.5 percent and females, 49.5 percent (see Table 3).

Considering age as a student characteristic for the 513 students entering the Programs for Higher Education during the five year period between 1979 and 1984, the mean age was 42.28. Mean ages were also calculated for students for each of the 15 possible dates of entry into the Programs for Higher Education during the same five years (see Table 4). This table indicates that the mean age of the PHE students has been relatively consistent over a period of years. It may be inferred that the mean age of students entering the PHE in future years will also be approximately 42 years.

Table 3

Number and Percentage of Males and Females Nova University Programs for Higher Education Students Enrolled 1984-1985

Sex	Number	%
Male	191	50.53
Female	187	49.47
Total	378	100.00

Note. Data are from MacFarland (1985:13).

A listing of the mean ages of Nova University Programs for Higher Education doctoral students by number and cluster who were enrolled between 1979-1984 is presented in Table 5. It should be noted that the Chicago Cluster had the highest mean age, 48.93, however, that age was

represented by only one student. The lowest mean age, 36.60 was represented by two students from the North Miami Cluster.

Table 4

Mean Age and Date of Entry of Programs for Higher Education Students 1979-1984

	Date of Entry	Number	Mean Age
1	Fall 1979	38	41.92
2	Winter 1979	14	41.80
3	Spring 1980	7	46.38
4	Fall 1980	91	42.06
5	Winter 1980	10	44.93
6	Spring 1981	13	42.04
7	Fall 1981	76	40.21
8	Winter 1981	9	42.73
9	Spring 1982	1	45.32
10	Fall 1982	94	43.23
11	Winter 1982	12	49.28
12	Spring 1983	8	43.22
13	Fall 1983	106	42.12
14	Winter 1983	13	39.87
15	Spring 1984	21	42.52
Overall		513	42.28

Note. Data are from Collins (1984:50).

Table 5

Number and Mean Age of PHE Students Enrolled by Cluster 1979-1984

	Cluster	Number	Mean Age
1	Chicago Alpha	1	48.93
2	Chicago	36	42.81
3	Dallas	47	43.13
4	Fort Bragg	47	42.42
5	Glendale	35	39.84
6	Virginia	27	43.92
7	Hampton/Richmond	20	38.95
8	Los Angeles	8	43.69
9	Milwaukee	28	42.92
10	Moorehead City	10	38.77
11	Oakland	34	43.78
12	Santa Ana	38	44.52
13	Philadelphia	55	42.78
14	Florida Alpha	10	41.35
15	West Florida	19	42.27
16	Tampa	47	41.59
17	North Miami	2	36.60
18	Miami Dade	3	44.03
19	South Florida	32	40.93

Table 5 (Cont.)

Cluster	Number	Mean Age
20 Phoenix	14	39.94
Overall	513	42.28

Note. Data are from Collins (1984:49).

The cluster with the largest number of enrolled students, 55 students, was the Philadelphia Cluster. The mean age of students in the Philadelphia Cluster was 42.78. Considering that the overall mean age of the 513 students was 42.28, the mean age of the Philadelphia Cluster students is very representative of the mean age of all students in the Programs for Higher Education doctoral program.

The mean age and standard deviation by sex of Nova University Programs for Higher Education students enrolled in 1984-1985 is presented in Table 6. The mean age for all PHE students was 42.76. The mean age for males was 43.48 and the mean age for females was 42.02.

The number, sex, and age category of PHE graduate respondents (the year their Ed.D. was received) is indicated in Table 7. However, it must be noted that of the approximate 1,100 graduates of the PHE that were mailed surveys, only 278 returned completed surveys. This should give a general idea of the ages of both males and females at the time of graduation from the Nova University Programs

for Higher Education. It should be noted that the largest number of male and female graduates were in the 45-49 age category, and the smallest number of male and female graduates were in the 30-34 age category.

Table 6

Mean Age and Standard Deviation by Sex of Nova University Programs for Higher Education Students Enrolled 1984-1985

Sex	Mean Age	Standard Deviation
Male	43.48	7.69
Female	42.02	13.46
Overall	42.76	10.95

Note. Data are from MacFarland (1985:14).

Ethnic group as a student characteristic for the Nova University Programs for Higher Education students enrolled for the academic year 1984-1985 consisted of six categories: (1) non-resident alien, (2) Black, non-Hispanic, (3) American Indian or Alaskan native, (4) Asian or Pacific islander, (5) Hispanic, and (6) White, non-Hispanic. The largest represented ethnic group enrolled in the PHE during 1984-1985 was White, non-Hispanic (n = 292). This represented 79.35 percent of all the ethnic groups. The smallest ethnic group was non-resident alien (n = 2) representing 0.53 percent of all the ethnic groups. Ethnic

Table 7

Number, Sex, and Age Category of PHE Graduate Respondents the Year Ed.D. Degree was Received

Characteristic Age Category	Males No.	Males %	Females No.	Females %	Total
30-34	7	4.3	4	3.5	11
35-39	19	11.6	15	13.0	34
40-44	33	20.2	29	25.2	62
45-49	48	29.4	33	20.2	81
50-54	28	17.2	22	19.1	50
55-59	24	14.7	6	5.2	30
60-64	2	1.2	2	1.7	4
No age given	2	1.2	4	3.5	6
Total	163	58.6	115	41.4	278

Note. Data are from Kibbee (1987:6).

group representations by number, percent, and mean age for PHE students enrolled 1984-1985 is presented in Table 8 and Table 9. Ethnic group representation by age as a student characteristic for the 513 students entering the Programs for Higher Education during the five year period 1979-1984 is presented in Table 10. Of particular interest is the similarity of the mean ages for each group. The highest mean age, 42.70, was representative of the White group; the

Table 8

Number and Percentage of Nova University Programs for Higher Education Students Enrolled 1984-1985 by Ethnic Group

Ethnic Background	Number	%
Non-Resident Alien	2	0.53
Black, Non-Hispanic	47	12.77
American Indian or Alaskan Native	4	1.09
Asian or Pacific Islander	9	2.46
Hispanic	14	3.80
White, Non-Hispanic	292	79.35
Total	368	100.00

Note. Data are from MacFarland (1985:14).

lowest mean age, 39.83, was representative of the Hispanic ethnic group.

Table 11 provides the number, percentage, sex, and racial or ethnic background for PHE students enrolled in the academic year 1979-1984. Table 11 data is similar to the data presented in Table 8 for PHE students enrolled in 1984-1985. The White group in both tables is the largest group represented with the Black group being the second largest group represented. The specialization of each ethnic group by number and percent for PHE students enrolled between 1979-1984 is presented in Table 12. Of special interest is

Table 9

Mean Age and Standard Deviation by Ethnic Group of Nova University Programs for Higher Education Students Enrolled 1984-1985

Ethnic Group	Mean Age	Standard Deviation
Non-Resident Alien	41.75	7.78
Black, Non-Hispanic	39.00	14.69
American Indian or Alaskan Native	44.21	8.91
Asian or Pacific Islander	37.55	15.51
Hispanic	38.63	13.07
White, Non-Hispanic	43.68	9.65
Overall	42.74	10.80

Note. Data are from MacFarland (1985:11).

the fact that 100 percent of the Hispanic group, 93.7 percent of the Asian group, 69.3 percent of the White group, and 60 percent of the Black group were enrolled in the Higher Education specialization. In the Adult Education specialization, 34.5 percent of the Black group, 26.7 percent of the White group and 6.3 percent of the Asian group comprised this area. The specialization with the least enrollment between 1979 and 1984 was Vocational, Technical and Occupational Education. The Black group represented 5.5 percent and the White group represented 4 percent of this specialization.

Table 10

Mean Ages by Sex, Specialization and Racial or Ethnic Background for PHE Students 1979-1984

Demographic Category	Mean Age
By Sex	
Males	41.79
Females	42.89
By Specialization	
Higher Education	42.18
Adult Education	42.56
Vocational, Technical and Occupational Education	42.11
By Racial or Ethnic Group	
Black	40.72
White	42.70
Hispanic	39.83
Asian	40.24
Native Americans	40.51
Overall	42.28

Note. Data are from Collins (1984:48).

Since all Programs for Higher Education students must be employed full-time in a professional position in Higher Education, Adult Education, or Vocational, Technical

Table 11

Number, Percent, Sex, and Racial or Ethnic Background for PHE Students 1979-1984

	Racial or Ethnic Background											
	Blacks		Whites		Hispanics		Asian		Native American		Total	
Sex	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Males	23	8.1	246	86.3	10	3.5	5	1.8	1	0.4	285	55.6
Females	32	14.0	181	79.4	4	1.7	11	4.8	0	0.0	228	44.4
Total	55	10.7	427	83.2	14	2.7	16	3.1	1	0.2	513	

Note. Data are from Collins (1984:41).

and Occupational Education, an examination of the present work position of students was observed in Table 13. This represents the enrollment of Nova University PHE students for the academic year 1984-1985. The mean age and standard deviation of the same students is reported in Table 14. The mean years and standard deviation of length of time in present position for the PHE students enrolled in 1984-1985 is presented in Table 15. The number and percentage of male and female PHE students by present position for 1984-1985 is presented in Table 16. Of special interest is the fact that the largest number of PHE students (185) hold teaching faculty positions. The second largest number of PHE students (130) hold administrative positions (see Table 13).

Table 12

Number and Percent of PHE Student Racial or Ethnic Background by Specialization 1979-1984

Racial and Ethnic Background	Specializations						
	Higher Education		Adult Education		Vocational, Technical and Occupational Education		
	No.	%	No.	%	No.	%	Total
Black	33	60.0	19	34.5	3	5.5	55
White	296	69.3	114	26.7	17	4.0	427
Hispanic	14	100.0	0	0.0	0	0.0	14
Asian	15	93.7	1	6.3	0	0.0	16
Native American	0	0.0	1	100.0	0	0.0	1
Overall	358	69.8	135	26.3	20	3.9	513

Note. Data are from Collins (1984:64).

The marital status of Nova University Programs for Higher Education students enrolled in the academic year 1986-1987 is presented in Table 17. Approximately 340 PHE students were mailed surveys by the PHE central staff and 282 completed surveys were returned. Two hundred and two of the 282 students returning the surveys were married, 35 were divorced or separated, six were widowed, and 37 were single.

Table 13

Number and Percentage of Nova University Programs for Higher Education Students Enrolled 1984-1985 by Present Position

Present Position	Number	%
Teaching Faculty	185	49.86
Administrator	130	35.04
Counselor	18	4.85
Librarian	6	1.62
Other	32	8.63
Total	371	100.00

Note. Data are from MacFarland (1985:17).

Table 14

Mean Age and Standard Deviation of Nova University Programs for Higher Education Students Enrolled 1984-1985 by Present Position

Present Position	Mean Age	Standard Deviation
Teaching Faculty	42.35	13.20
Administrator	43.51	7.70
Counselor	41.11	7.70
Librarian	35.35	17.65
Other	43.02	7.73
Overall	42.63	10.95

Note. Data are from MacFarland (1985:17).

Table 15

Mean Years and Standard Deviation of Length of Time in Present Position of Nova University Programs for Higher Education Students Enrolled 1984-1985

	Length of Time Employed	
Present Position	Mean Years	Standard Deviation
Teaching Faculty	8.03	6.09
Administrator	4.88	3.96
Counselor	5.91	5.51
Librarian	6.57	6.13
Other	5.11	4.93
Overall	6.54	5.49

Note. Data are from MacFarland (1985:18).

An explanation may be given about the large percentage (71%) of married students in the PHE. Simply stated, the explanation is that the large number of married students in the PHE is similar to the general population of the country in that at the average age of 42 in the life cycle, most people are married. Regarding the other demographic characteristics presented previously, it can be concluded that the field-based PHE students are older than students in traditional Ed.D. programs. With regard to the demographic characteristic of sex, both PHE and traditional Ed.D. student enrollments are in parity. On the other hand,

Table 16

Number and Percentage of Male and Female Nova University Programs for Higher Education Students Enrolled 1984-1985 by Present Position

	Male		Female		
Present Position	Number	%	Number	%	Total
Teaching Faculty	84	45.9	99	54.1	183
Administrator	68	53.1	61	46.9	130
Counselor	13	76.5	4	23.5	17
Librarian	1	16.7	5	83.3	6
Other	19	59.4	13	40.6	32
Overall	185	50.54	182	49.46	368

Note. Data are from MacFarland (1985:22).

the PHE students have more professional experience at the time of their enrollment in the Ed.D. program than does their traditional Ed.D. student counterparts. This is in part due to the increased age of the PHE students at the time of enrollment. It is also due to the fact that all PHE students must be currently employed in a professional position in the specialization in which they intend to enroll. According to the Nova University Programs for Higher Education Catalog 1986-87 (1986:4). The admission criteria is defined as:

> Admission to the program requires a master's degree from an accredited institution, current full-time employment

Table 17

Marital Status by Sex, Number and Percentage of PHE Respondents Enrolled 1986-1987

Characteristic	Male		Female	
	No.	%	No.	%
Single	12	4.25	25	8.86
Married	117	41.48	85	30.14
Separated	3	1.06	2	0.70
Divorced	6	2.12	24	8.51
Widowed	1	0.35	5	1.77
No Answer	1	0.35	1	0.35
Total	140		142	

Note. Data are from Kibbee (1987:19).

> in a job related to the applicant's area of specialization, and three recommendations from senior academic or administrative personnel in the applicant's place of employment. . . .

Since the typical PHE field-based student works in institutions and lives in communities all across the nation and in some foreign countries, the aforementioned demographic information should be helpful in understanding the unique characteristics of the student population.

Definition of Terms

For the purpose of this investigation, the following terms were defined:

A Priori Scales. Those attitudinal factors initially identified in the literature and by discussions with PHE students, faculty, cluster coordinators, major applied research project (MARP) advisors, research fellows, and Nova Central administrators that bear a relationship to independent learning.

Attitude. The word attitude is "used to refer to a general tendency of an individual to act in a certain way under certain conditions" (Mager, 1968:14).

Attitude Scale. "A measure of the degree of an individual's like or dislike for an institution, situation, event, etc. . . ." (Aiken, 1971:310).

Attrition. The loss of students in an educational program due to academic or personal reasons.

Clusters. All Programs for Higher Education students are organized into groups called local or regional clusters. Local clusters meet on a regular basis, usually once a month, in central locations throughout the country. Regional clusters meet at designated locations twice or more during the year and are designed for students who are not geographically close to a local cluster site or for students who can not meet on a regular basis.

Cluster Coordinator. "This person is the liaison between the cluster and the central staff. The coordinator

has academic responsibilities as well as housekeeping chores" (Nova University, 1985:314).

Core Seminars. "Core seminars are those seminars that are required in each specialization area" (Nova University, 1985:314).

Empirical Scales. The factors identified as a result of the factor analysis.

Field-Based Doctoral Program. It is designed to provide doctoral level instruction to students in local areas. Students are not required to satisfy a residency requirement on campus.

Independent Learner. An independent learner is a person who identifies learning goals and the processes and resources needed to reach those goals. The independent learner then mobilizes personal energy and concentration toward the attainment of the identified learning goals.

Specialization. For the purpose of this investigation, specialization refers to one of the three areas of study in the Programs for Higher Education: Leadership in Adult Education; Higher Education; and Vocational, Technical, and Occupational Education.

Traditional Doctoral Program Students. Students attending accredited higher education institutions who must satisfy a residency requirement in the pursuit of the terminal degree.

Limitations

This investigation was limited with regard to the distribution and return of the survey's computer scoreable answer sheets. Initially the survey administration instructions requested the PHE cluster coordinators to explain and administer the surveys to their students during the April, 1987 cluster meeting. Due to a change in the PHE central office staff, six of the 12 cluster coordinators failed to administer the surveys to their students as requested. This resulted in not only a month's delay in the survey administration for these clusters but necessitated a variation in the method of administration. For these six clusters, surveys had to be sent individually through the mail without the benefit of cluster coordinator counsel. The survey administration limitations were:

1. Surveys sent individually through the mail to students by the cluster coordinators may not have had an explanatory cover letter attached (one cover letter was initially sent to the cluster coordinator).
2. Many students who would have otherwise completed the survey at the April cluster meeting did not complete and return the survey when sent one through the mail.
3. Ten of the student surveys that were returned individually by students through the mail were not complete.

4. Approximately 35 of the returned surveys were not marked properly with a number two pencil.

Assumptions

For the purposes of this investigation a number of assumptions were made:

1. All PHE cluster coordinators would distribute and administer the student survey according to the instructions sent them.
2. The survey instrument used to gather data on student attitudes was appropriate for the investigation.
3. The instructions to students regarding the survey were clear and understood.
4. The *a priori* scale items were clear and understood by the students completing the survey.
5. The students would answer all survey items as accurately and earnestly as possible.

Chapter 2

REVIEW OF RELATED LITERATURE

The purpose of this investigation was to develop a valid and reliable instrument to assess the attitudes toward independent learning of the Nova University Programs for Higher Education field-based doctoral students. Because the Nova University field-based doctoral students are geographically isolated from their cluster coordinators, instructors, local research associates, and fellow students, it was concluded that a high independent learning style was needed to advance through the Ed.D. program in a timely manner. Therefore, the notion of the independent learner will be explored in great detail.

This literature review will be limited to the following topics: adult learning, independent learning (self-directed learning), attitudes toward learning, locus of control, field independence and dependence, and attrition of doctoral students.

Adult Learning

Since the approximate mean age of the adult students in the Nova University Programs for Higher Education field-based Ed.D. program is 42 years, an initial review of adult learning is provided.

The literature describes various participation rates of adults in learning activities. Wide discrepancies in participation rates exist due to the definitions of "learning activities." Tough (1971:72) defines learning broadly as "sustained, highly deliberate efforts to learn knowledge or a skill." The use of this definition allowed Tough (1971:73) to conclude that "98 percent of the adults in his research sample were active learners." One definition of "adult education" that was adopted by The National Center for Education Statistics was any learning

> consisting of courses and other educational activities, organized by a teacher or sponsoring agency, and taken by persons beyond compulsory school age. Excluded was full-time attendance in a program leading toward a high school diploma or an academic degree (Cross, 1984:51).

As a result of the use of this definition of adult education, 12 percent of the 1978 U.S. adult population over the age of 17 were reported to be involved in "some type of organized adult education" (Cross, 1984:51).

A more comprehensive definition of adult education is one that defines it as an activity and field of practice (UNESCO, 1976:2)

> . . . the term "adult education" denotes the entire body of organized educational processes, whatever the content, level and method, whether formal or otherwise, whether they prolong or replace initial education in schools, colleges and universities as well as in apprenticeship, whereby persons regarded as adult by the society to which they belong develop their abilities, enrich their knowledge, improve their technical or professional qualifications or turn them in a new direction and bring about changes in their attitudes or behavior in the twofold perspective of full personal development and participation in balanced and independent social, economic and cultural development;

> adult education, however, must not be considered as an entity in itself, it is a sub-division, and an integral part of a global scheme for life-long education and learning;
>
> the term "life-long education and learning," for its part, denotes an overall scheme aimed both at restructuring the existing education system and at developing the entire educational potential outside the education system;
>
> in such a scheme men and women are the agents of their own education through continual interaction between their thoughts and actions;
>
> education and learning, far from being limited to the period of attendance at school, should extend throughout life, include all skills and branches of knowledge, use all possible means, and give the opportunity to all people for full development of the personality;
>
> the educational and learning processes in which children, young people and adults of all ages are involved in the course of their lives, in whatever form, should be considered as a whole.

The above examples of adult education definitions clearly show that researchers are not in agreement in defining "adult education." This, of course, makes it difficult for practitioners and others to read and digest writings in the field of adult education. However, the latter definition of adult education is comprehensive and captures the essence of the experience of the Nova University Programs for Higher Education field-based doctoral students as they aspire toward the terminal degree in a non traditional educational program.

Non-Traditional Learners

Nova University's Programs for Higher Education doctoral students are older than traditional doctoral students. The mean age of the Nova doctoral students is

approximately 42 years. Another non-traditional aspect of the PHE doctoral students is the fact that all are employed full-time in the field of higher education. Full-time employment in the field of higher education is one of the requirements for admission to the Nova PHE doctoral program. The students continue to work full-time while pursuing the Ed.D. degree. Soles (1977:4), refers to the Commission on Non-Traditional Study's 1975 publication, Diversity by Design, in their description of salient aspects of a non-traditional doctoral program.

> The term 'non-traditional doctoral program' implies the primacy of student interests; the utilization of many modes for learning; the deemphasis of time, space, and courses in favor of competence and performance.

Houle (1977:14-15) shares a similar point of view of non-traditional learning with his definition of an external degree:

> An external degree is one awarded to an individual on the basis of some program of preparation (devised either by himself or by an educational institution) which is not centered on traditional patterns of residential college or university study.

The Nova University Programs for Higher Education field-based doctoral degree program fits Houle's definition for an external degree. Knowles (1984:131) suggests the importance for external degree students to master an independent learning style, as indicated in his statement:

> external degree programs will work only if their students take a heavy responsibility for their own learning, but adults enter into these programs typically with the self-concept of dependency that they were conditioned to have in their previous schooling. Therefore, they need to be helped to make the transition from dependent to self-directed learners.

Houle (1977:11) elaborates on the need for non-traditional (field-based) degree programs by indicating that "education should be fitted to the concerns and lifestyle of the mature student who is active in the normal affairs of adulthood." However, the difficulty of aspiring toward a non-traditional degree like the Nova PHE field-based Ed.D. is suggested by Samuel Gould, Chairman, Commission on Non-Traditional Study (Houle, 1977:xi) when he states that "more rather than less rigor is demanded of the external degree student; more rather than less initiative is expected;" and he insists that a great deal of self-motivation is required. In addition, Baird (1979:3) insists that

> a pattern of significant, self-initiated accomplishments frequently reflects the sort of motivation and interest that cause a person to persist through training and to achieve more in professional work.

Felix and Aker (1982:6) expand on the importance of self-motivation for field-based learners by acknowledging that "while motivation is extremely complex and imperfectly understood, it is best seen within the framework of an adult's needs, goals, habits, values, and self-concept."

Research on Motivation of Adult Learners

According to Cross (1984:81)

> the research methods for seeking answers to the motivation of adult learners fall into four basic designs: (1) depth interviews, (2) statistical analysis of motivational scales, (3) survey questionnaires, and (4) hypothesis testing.

Depth interviews. Houle (1961), upon completing several depth interviews, developed a three-way typology to explain the motivation of twenty-two exceptionally active male and female adult learners. Houle (1961:13) stated they were "so conspicuously engaged in various forms of continuing learning that they could be readily identified." Houle's three-way motivation typology included: (1) goal-oriented learners (use learning to accomplish specific objectives), (2) activity-oriented learners (participate primarily for the activity itself rather than to learn subject matter), and (3) learning oriented learners (pursue learning for its own sake). Boshier (1976:42-43) reviewed fourteen research studies based on Houle's (1961) three-way typology and concluded that

> Houle's typology is elegant and makes subjective sense, but until motivational orientation researchers develop a suitable psychometric procedure to test its validity, it cannot be accepted or rejected as an accurate description of adult learners.

However, Cross (1984:83) states that "the Houle typology offers a useful framework for thinking about multiple motives for adult learning." Lenning, Munday, Johnson, Well, and Brue (1974) add the following as possible motives for adult learning: intellectual development; motivational and aspirational development; personality development and adjustment; social development; aesthetic-cultural development; and moral, philosophical, and religious development.

Statistical Analysis of Motivational Scales. This research method for seeking answers to the motivation of adult learners usually

> . . . begins with psychometrically constructed instruments and then the responses to the instruments are subjected to factor analysis, cluster analysis, or some other technique aimed at reducing a large number of item responses to meaningful clusters or subgroups. The factor analysis of the Educational Participation Scale (EPS) by Morstain and Smart (1974) illustrates the types of conclusions derived from these methods (Cross, 1984:85).

Six motivational factors were found by Morstain and Smart (1974) and these were paired with the three items from the Educational Participation Scale that seemed most relevant to each factor (Cross, 1984:85-86) and are presented below:

Factor I. Social Relationships

A. To fulfill a need for personal associations and friendships

B. To make new friends

C. To meet members of the opposite sex

Factor II. External Expectations

A. To comply with instructions from someone else

B. To carry out the expectations of someone with formal authority

C. To carry out the recommendations of some authority

Factor III. Social Welfare

A. To improve my ability to serve mankind

B. To prepare for service to the community

C. To improve my ability to participate in community work

Factor IV. Professional Advancement

A. To give me higher status in my job

B. To secure professional advancement

C. To keep up with competition

Factor V. Escape/Stimulation

A. To get relief from boredom

B. To get a break in the routine of home or work

C. To provide a contrast to the rest of my life

Factor VI. Cognitive Interest

A. To learn just for the sake of learning

B. To seek knowledge for its own sake

C. To satisfy an inquiring mind

The above six factors are the reasons why adults seek out learning (Morstain and Smart, 1974). If one factor had to be chosen to represent why the Programs for Higher Education students enrolled in doctoral training--Factor IV, Professional Advancement, would be selected. Most PHE students freely admit that they are interested in earning promotions at work that, in most cases, involve increased job status and financial benefits. In addition, some PHE students indicate that the acquisition of the terminal degree will allow them the opportunity to secure professional advancement outside their current institutions.

Survey Questionnaires. According to Cross (1984:88) the most popular current research method for studying the motivation of adults toward learning is the survey

questionnaire. Survey questionnaires differ from "depth interviews" described previously in that the surveys

> ask respondents to choose from a list of predetermined alternatives rather than exploring respondents' free-ranging thoughts about learning. The surveys are typically reported in numerical frequencies, whereas the depth interviews are usually narrated as subjective impressions (Cross, 1984:88).

The method for collecting data for this investigation was the survey questionnaire.

Hypothesis Testing. This research method tends to explain why adults are motivated to involve themselves in learning activities (Cross, 1984). However, Cross (1984:95) states that there are problems with this research method in

> that investigators are likely to find what they are looking for, especially when they are in a position to influence the response--as is the case in most studies using interviews.

The research methods described above for seeking answers to the motivation of adult learners do not provide simple and conclusive reasons to explain why adults participate in learning activities. However, they do suggest that "motives differ for different groups of learners, at different stages of life, and most individuals have not one but multiple reasons for learning" (Cross, 1984:97). Because the approximate average age of the Nova University PHE field-based doctoral students is 42 years, and because they are all working full-time in higher education, they probably tend to share some common motives for furthering their education. A motive at the top of the list for Nova PHE students, as mentioned previously, seems

to be professional advancement. However, each learner in the Nova PHE program has additional motives highly unique to the individual.

Independent (Self-Directed) Learning

One portion of the investigation regarding the development of an instrument to assess adult attitudes toward independent learning revolved around the notion of independent (self-directed) learning. Knowles (1975:81) suggests that self-directed learning begins when learners develop an awareness of some need for learning. More specifically, he suggests that learners involve themselves in a systematic self-diagnostic process to discover their individual needs for learning. Knowles (1975:81-82) envisions the self-diagnostic process in three steps:

1. The development of a model of desired behaviors or required competencies;
2. The assessment of the present level of performance by the individual in each of these behaviors or competencies; and
3. The assessment of the gaps between the model and the present performance.

Kidd (1973:271) suggests that adults have two needs for learning:

1. A need in the sense that the learner lacks some information or skill that it is assumed he should have, or that is enjoyed by most members of society.

2. A need in the sense of a tension or disequilibrium--for example, if the body lacks food, or if the person lacks affection, or lacks a philosophy of life.

The need for learning for the PHE field-based students is probably (as stated previously) motivated by a desire for increased prestige, promotion to a higher rank or position, financial benefits, and self-esteem growth. However, the type of learning that has been experienced by these doctoral students from elementary, secondary, and undergraduate education, and current graduate education is an important focus of this investigation.

According to Knowles (1975:60), there are two types of learning: teacher-directed learning or "pedagogy" and self-directed learning or "andragogy." The word pedagogy is derived from two Greek words: paid (meaning "child") and agogus (meaning "guide")--translated as the art and science of teaching children. The word "andragogy" is derived from the Greek word aner (meaning "adult")--translated as the art and science of helping adults learn.

Knowles (1975:60) compares the following assumptions about andragogy and pedagogy: the concept of the learner under a pedagogical style of teaching is that of a dependent personality whereas the andragogical learner is increasingly self-directed. The role of a learner's experience is rarely utilized in pedagogy and on the other hand is a resource for learning in andragogy. Readiness to learn varies with levels of maturation in pedagogy and develops from life situations and problems in andragogy. Orientation to

learning is subject centered in pedagogy and task centered in andragogy. Motivation to learn is characterized by external rewards and punishments in pedagogy and by internal incentives and curiosity in andragogy. Now that an exploration of the assumptions about pedagogy and andragogy has taken place, a listing and discussion of the competencies required to excel in the two types of learning follows. According to Knowles (1975:23), to excel in teacher-directed learning (pedagogy), successful students must achieve the following competencies:

1. listen attentively
2. take careful notes
3. read speedily and with good comprehension, and
4. the ability to predict exam questions.

In contrast to the competencies required for teacher-directed learning, successful andragogical (self-directed) learning requires the following competencies (Knowles, 1975:61):

1. An understanding of the differences in assumptions about learners and the skills required for learning under teacher-directed learning and self-directed learning, and the ability to explain these differences to others.

2. A concept of myself as being a non-dependent and self-directing person.

3. The ability to relate to peers collaboratively, to see them as resources for diagnosing needs, planning my

learning, and learning; and to give help to them and receive help from them.

4. The ability to diagnose my own learning needs realistically, with help from teachers and peers.

5. The ability to translate learning needs into learning objectives in a form that makes it possible for their accomplishment to be assessed.

6. The ability to relate to teachers as facilitators, helpers, or consultants, and to take the initiative in making use of their resources.

7. The ability to identify human and material resources appropriate to different kinds of learning objectives.

8. The ability to select effective strategies for making use of learning resources and to perform these strategies skillfully and with initiative.

9. The ability to collect and validate evidence of the accomplishment of various kinds of learning objectives.

The above andragogical (self-directed) learning competencies are geared to enhancing the independence of the learner and freeing him/her from the shackles of dependency. The Nova University PHE doctoral students should consider assessing themselves on these andragogical competencies in order to set goals for specific competency refinement. The overall goal would be to improve self-directed learning throughout their doctoral program, on the job, and in their personal lives.

Patricia Cross (1984:250), another adult education researcher, fully supports Knowles's recommended andragogical learning competencies in the following statement:

> Few adults, on the job or in their role as citizens and family members, are ever told what they need to know or where the answers will be found . . . the learner is required to define the problem, locate appropriate learning materials, and demonstrate not just subject matter comprehension but the ability to apply the knowledge on the job, in the home, or for personal development. These needs call for thoughtful, autonomous learners rather than dependent learners. Moreover, they call for people who know how to select and use the multiple resources in the learning society.

A cursory look at the previous comparisons of the assumptions of pedagogy and andragogy should instill a desire in learners and teachers to move toward the andragogical teaching and learning style. Cross (1984:249) expresses concern with the present educational (pedagogical) system in our society in her statement:

> I believe that the single most important goal for educators at all levels and in all agencies of the learning society is the development of lifelong learners who possess the basic skills for learning plus the motivation to pursue a variety of learning interests throughout their lives. There is some danger that the present educational system is geared to creating dependent rather than independent learners.

Cross (1984:xi) refers to the definition of lifelong learning that was adopted by the General Conference of UNESCO (1976) as a goal for all educators to follow.

> The term "lifelong education and learning" denotes an overall scheme aimed both at restructuring the existing education system and at developing the entire educational potential outside the education system; in such a scheme men and women are the agents of their own education.

Cross (1984:xi) delineates the definition of lifelong learning into three basic ideas:

> One is that the entire formal educational system, from elementary school through graduate school, should be restructured to develop lifelong learners. Second, it is not just schools and colleges that are to serve as the targets for improved education. Rather, the world is full of people, organizations, and other learning resources that can be marshaled on behalf of lifelong learning. Third, this definition stresses the importance of helping people become self-directed learners, the active agents of their own education.

According to Dave (1976:35-36) the best descriptive statement for the concept of lifelong learning is

> lifelong education seeks to view education in its totality. It covers formal, nonformal, and informal patterns of education . . . and is also characterized by flexibility in time, place, content, and techniques of learning and hence calls for self-directed learning, sharing of one's enlightenment with others, and adopting varied learning styles and strategies.

The definitions of lifelong learning previously stated stress the importance of refining the skill of self-directed learning. Lucy Guglielmino, a researcher at Florida Atlantic University, developed the Self-directed Learning Readiness Scale (SDLRS) in 1977 (Zemke, 1982:28). Her research suggests eight factors that distinguish the self-directed learner (Zemke, 1980:6):

1. openness to learning opportunities
2. self-concept of problem solver and effective learner
3. values initiative and independence in learning
4. love of learning
5. acceptance of responsibility
6. future orientation
7. creativity

8. ability to use problem solving and basic study skills.

Guglielmino does not view traditional educational teaching approaches with high regard. In fact, she insists that

> our traditional approach to education stifles self-directed learning and decreases the desire to learn. We've been trained to undervalue our own independent learning and overvalue that which we get from authority figures. . . Once we point out the importance of self-directed learning, show people what self-directed learning looks like and reinforce the value of their efforts, people begin to take responsibility for their learning (Zemke, 1982:29).

Individual Differences in Learning Style

Cognitive Style and Locus of Control

An understanding of the concepts of cognitive style and locus of control may help to explain why some Nova University PHE students work well independently while others need increased supervision from lecturers, coordinators, and staff. Cognitive styles or learning styles are "ways of organizing and processing information and experience" (Mitzel, 1982:845). In addition, Cronbach and Snow (1977) indicate that cognitive styles reflect the differences in personality characteristics and abilities. Mitzel (1982: 845) explains cognitive style by using the terms "field independence and field dependence." Mitzel elaborates that cognitive style

> includes dimensions such as the following: field independence versus dependence (responding to the environment in analytical as opposed to global terms); cognitive complexity versus simplicity (the tendency to

> construe the world in a multidimensional or abstract way as opposed to a single dimensional or concrete way); reflection versus impulsivity (differences in the speed and adequacy with which alternative hypotheses are formulated and information is processed); risk-taking versus cautiousness (individual differences in a person's willingness to take chances to achieve a desired goal); and sensory modality preferences (individual differences in the relative reliance upon the kinesthetic, visual, or auditory sensory modalities).

Another concept that may help to explain individual differences is locus of control. Locus of control as defined by Fanelli (1977:126) "concerns whether people think of themselves as being responsible for their behavior (internal) or whether they attribute their behavior to luck or other circumstances beyond their control (external)."

Mitzel (1982:1257) indicates that a number of research studies

> show that students with an internal locus of control tend to have a somewhat higher need for achievement and are more persistent than students with an external locus of control, who are more likely to be characterized by what has been called "learned helplessness."

According to Harre and Lamb (1983:358)

> people who believe that the events that occur in their lives are a result of their own behavior and/or personality characteristics are said to have an "expectancy of internal control," while people who believe events in their lives to be a function of luck, chance, fate, powerful others or powers beyond their control or comprehension are said to have an "expectancy of external control."

Three questionnaires that have been developed to measure internal and external locus of control are the Rotter (1966) I-E scale, the Levenson (1974) IPC scale, and the Collins (1974) scale (Harre and Lamb, 1983:358). The most popular of the three scales is the Rotter Scale.

Rotter developed the "Locus of Control Scale" after studying social learning theory (Wolman, 1977:443). "Social learning theory holds that most behavior is learned in a social situation and is fused with needs that are largely satisfied through other people" (Wolman, 1977:443). One unique aspect of the Nova University field-based PHE doctoral program is that the students are spread out across the country and do not meet as a social group daily. This is especially true of the regional cluster. Therefore, it would seem logical to assume that those students who are considered "high independent learners" should complete the Ed.D. program faster than "low independent students." There are of course other variables to consider such as family and peer support systems, complexity of job responsibility, overall motivation and attitude toward learning.

Attitudes Toward Learning

Prior to the development of attitudinal scales to measure the Nova University Programs for Higher Education students' attitudes toward independent learning--the topic of attitudes was explored. According to Crow, Murray, and Smythe (1966:55), an individual first develops attitudes from his family and immediate environment. Rosen and D'Andrade (1959:186-187) reaffirm the importance of the family's influence on the attitude development of children when they state

> The need for achievement appears to be quite firmly rooted in the parents' attitudes toward achievement and

their behavior toward their offspring in achievement situations.

Ball (1977:124) states that

> children's attitudes toward achievement may be said, then, to develop from the positive outcomes that follow their performance on achievement-oriented tasks, namely warm parental approval and encouragement.

Therefore, the attitudes that adult students hold toward achievement seem to be greatly influenced by the family and significant others (peers, teachers, etc.) in the environment. But what is an attitude? Before answering that question, an attitude researcher (Rokeach, 1969:111) suggests additional thought provoking questions such as:

> What is the conceptual boundary between one attitude and other attitudes? Is it possible to define an attitude in such a way that it is possible to count the number of attitudes involved in a particular analysis, or the number of attitudes that may determine a particular social act?

Because of the broadness of the term, no single definition of attitude will satisfy everyone who studies the topic (Ball, 1977:111). However, the following definitions of attitude will serve as examples of the concept. Secord and Backman (1964:97) state that attitude "refers to certain regularities of an individual's feelings, thoughts, and predispositions to act towards some aspect of the environment." Doob (1967:43) defines attitude as "an implicit, drive-producing response considered socially significant in the individual's society." Krech, Crutchfield, and Ballachey (162:139) suggest the long lasting effect of attitudes with their definition--"enduring systems of positive or negative evaluations, emotional

feelings, and pro or con action tendencies with respect to social objects." The most comprehensive definition of attitude found in the literature is that offered by Rokeach (1969:132):

> An attitude is a relatively enduring organization of interrelated beliefs that describe, evaluate, and advocate action with respect to an object or situation, with each belief having cognitive, affective, and behavioral components. Each of these beliefs is a predisposition that, when suitably activated, results in some preferential response toward the attitude object or situation, or toward others who take a position or situation, or toward the maintenance or preservation of the attitude itself. Since an attitude object must always be encountered within some situation about which we also have an attitude, a minimum condition for social behavior is the activation of at least two interacting attitudes, one concerning the attitude object and the other concerning the situation.

Since the proposed method of surveying the attitudes toward independent learning of the Nova University PHE field-based students is the questionnaire--the administration of such must be carefully planned. Caution must be taken to insure that instructions are clear and that the results of the survey will not negatively impinge upon the student. Best (1981:180) states that the process of inferring attitude from expressed opinion may have some limitations

> People may conceal their attitudes and express socially acceptable opinions. They may not really know how they feel about a social issue; they may never have given the idea serious consideration. People may be unaware of their attitude about a situation in the abstract. Until confronted with a real situation, they may be unable to predict their reaction or behavior.
>
> Even though there is no sure method of describing and measuring attitude, the description and measurement of opinion, in many instances, may be closely related to people's real feelings or attitudes.

If, indeed, it is established at a later date (after new PHE students are surveyed) that a number of students score low in their attitudes toward independent learning--then perhaps intervention programs could be provided. According to Wolman (1977:190) "all investigators agree that although attitudes are enduring, they are also learned, or more broadly, changed through experience." Perhaps a new goal for the PHE and other institutions of higher education will be the assessment of student independent learning attitudes and the provision of intervention programs where indicated.

Student Attrition

An assumption can probably be made that a student's attitude toward learning will have some bearing on whether the student persists to graduation or drops out of school. The problem of attrition with adult graduate students is complex because there are numerous possible reasons for withdrawing from school. Some common reasons suggested in the literature for doctoral attrition are: economic hardship, family responsibility, work responsibilities, stress and lack of commitment. Lunneborg (1972) indicates that a doctoral student's lack of commitment may be the largest determiner for both voluntary and involuntary withdrawals. In his national investigation of attrition and persistence in doctoral programs, Sanford (1980:2) discovered that doctoral students have the lowest rate of

persistence of any class of students. This may be because many doctoral students are older and encumbered with significant responsibilities like a family, a mortgage, a job, etc. In addition, the intensity of doctoral work tends to be rigorous. According to Hobish (1979:2), there are two consistent patterns regarding doctoral program attrition: (1) "the dropout rate is inordinately high when compared with professional schools such as medical and law," and (2) "women are less likely than men to complete their studies despite the fact that they enter doctoral programs with stronger academic credentials than do men." Since the professional law and medical schools have demonstrated relatively low student attrition rates, investigative research in these schools would be a worthy effort. In addition, more research could be performed in the area of "prerequisites to attitude learning. The acquiring of particular attitudes may require the prior learning of particular intellectual skills or particular sets of information" (Gagne and Briggs, 1979:113). The product of this investigation, which is an instrument to assess adult attitudes toward independent learning, will hopefully provide insight and inspiration for continued research on the prerequisite skills and attitudes of independent learning.

Chapter 3

PROCEDURES AND METHODOLOGY

Definition of Population

The purpose of this investigation was to develop a valid and reliable instrument that may serve the Programs for Higher Education central administrative staff and field staff in counseling new students who have exhibited less positive or negative attitudes toward independent learning. The population of the initial step of this investigation included all first and second year Nova University Programs for Higher Education field-based students (N = 167). See Table 18.

A variety of demographic statistics describing students enrolled in Nova University's Programs for Higher Education during the past eight years, have been previously mentioned in Chapter 1. The data are based upon Collins's (1979-1984), MacFarland's (1984-1985) and Kibbee's (1986-1987) investigation of Nova University Programs for Higher Education students.

Need for Attitude Scale

In early August, 1986 several discussions took place between the PHE central administrative staff and the PHE

Table 18

Cluster Membership, Number of First and Second Year PHE Students Surveyed, and Number and Percent of Respondents

Cluster	No. Surveyed	No. of Respondents	Percent
Alaska	5	5	100.00
Chicago	10	10	100.00
Dallas	15	10	66.66
Greenwood	13	11	84.61
Hampton/Richmond	13	5	38.46
Massachusetts	8	7	87.50
Philadelphia	15	13	86.66
Regional Cluster	25	14	56.00
Santa Ana	11	7	63.63
South Florida	17	15	88.23
Tampa	24	14	58.33
West Florida	11	8	72.72
Overall	167	119	71.25

research fellows regarding the wide discrepancy of time that it takes for students to complete the field-based Ed.D. program. The question of why it takes some students three years to complete the degree requirements and other students up to seven years or longer was raised. Some obvious explanations were: (1) some students have large family responsibilities, (2) some students have more demanding work

responsibilities, (3) some students vary in the degree of their motivation, (4) some students have health problems, etc. Another explanation was also offered. That is, some students demonstrate a high independent learning style while others demonstrate a medium to low independent learning style. It was the latter explanation that ultimately led to this investigation of the development of an instrument to assess the attitudes toward independent learning of the Nova University PHE field-based doctoral students.

A survey, "1987 Summer Institute Professional/ Personal Skill Enhancement Programs Survey" (Kole, 1987), was conducted several months prior to the 1987 Summer Institute in an attempt to determine the independent learning needs of all first and second year Nova University Programs for Higher Education doctoral students. Since the theme of the 1987 Programs for Higher Education Summer Institute was "The Independent Learner: Processes for Success," the results of the survey were relevant to this investigation on the development of an instrument to assess the attitudes of adults toward independent learning. Each of the 17 skill areas on the survey was rated by the PHE students on a Likert-type five point scale with five indicating most interested and one indicating least interested. See Appendix B. The results of the "1987 Summer Institute Professional/Personal Skill Enhancement Survey" appear in Table 19. A description of the survey's 17 skill areas can be found in Appendix C.

Table 19

"1987 Summer Institute Professional/Personal Skill Enhancement Survey" Skill Areas and Corresponding Means and Standard Deviations for First and Second Year PHE Student Respondents

Skill Area	Mean	Standard Deviation
1. Time Management	3.49	1.06
2. Goal Setting	3.02	0.87
3. Problem Solving	3.64	0.91
4. Environmental Shaping	2.88	1.02
5. Values Clarification	2.80	1.02
6. Study and Research	4.14	0.82
7. Personal Development Improvement Planning	3.27	0.96
8. Student Resource Management	3.36	1.01
9. Positive Thinking	3.07	0.98
10. Active Orientation	2.92	0.98
11. Procrastination Control	3.27	1.07
12. Decision Making	3.50	0.92
13. Assertiveness	3.05	1.07
14. Listening	3.13	0.93
15. Team Building	3.32	0.98
16. Stress Management/Relaxation Training	3.54	1.00
17. Human Energy Building	3.29	1.01
Overall	3.28	0.98

Since the total mean of the 17 skill areas in Table 19 was 3.28 it appears that most of the 129 PHE survey respondents agreed that these skill areas were important components of a high independent learning style.

Initial Scale Design

After an extensive review of the literature and an examination of the results of the "1987 Summer Institute Professional/Personal Skill Enhancement Survey" which includes numerous discussions with PHE students, faculty, cluster coordinators, major applied research project (MARP) advisors, research fellows, and Nova Central administrators, ten a priori categories were identified as components of a high independent learning style. The ten components were: (1) ambition, (2) creativity, (3) curiosity, (4) decisiveness, (5) enthusiasm, (6) flexibility, (7) goal orientation, (8) persistence, (9) self-confidence, and (10) self-control. Attitude items relating to each of the ten components were designed and submitted to a committee of PHE students, faculty, and administrators who estimated whether an item was related in content to a specific component. The committee evaluated 125 statements. This procedure resulted in an acceptance of approximately eight items per component, resulting in a scale of 79 items. The a priori scales and the items contained in each are as follows:

Ambition.

1. I usually accomplish more than I had planned each day.
2. The more I have to do, the more I accomplish.
3. The greater the challenge, the more excited I am.
4. I like working on complex problems.
5. I consistently plan projects to work on.
6. I have much ambition.
7. My work is never dull because I am constantly creating new projects.
8. I expect to receive regular advances in my career.
9. I accomplish more each day than my colleagues do.

Creativity.

1. I often initiate projects myself.
2. I often come up with new ideas.
3. I have unique ways of accomplishing tasks.
4. People often seek my advice.
5. People often depend on me for direction.
6. It rarely takes me more than a few minutes to generate alternatives to a problem.
7. Given the opportunity, I can design creative solutions to problems.
8. I am constantly planning projects to work on.

9. I usually find various ways to totally immerse myself in my work.

Curiosity.

1. I am inquisitive about anything that I don't fully understand.
2. I often look for new ways to accomplish routine tasks.
3. I often wonder what is entailed in other peoples' projects.
4. Whenever I investigate a subject, I often gather more information than is necessary.
5. Whenever I find a solution to a problem, I wonder what alternative solutions may exist.
6. I love to read in a number of subject areas.
7. Whenever I am at a social gathering, I wonder what types of work various people do.

Decisiveness.

1. Once I review the facts, I have little trouble making a decision.
2. I often take action to improve my institution or organization.
3. When I must make a decision, I decide quickly.
4. If given the opportunity, I can design creative solutions to problems.
5. I attribute my success to effective decision making.

6. When I identify a more effective method to accomplish a task, I adopt it immediately.

Enthusiasm.

1. Others often praise me for my enthusiasm toward my work.
2. I am always eager to start a new day at work.
3. I am always looking for new things to do on the job.
4. I am always excited about the various aspects of my work.
5. I am eager to complete as many projects as I can.
6. I feel great when I start my day at work.
7. I put all of my energy into completing my work.

Flexibility.

1. I realize that there are many ways to solve a problem.
2. I have unique ways of getting things done.
3. I know a lot of ways to cut through red-tape.
4. I feel as though I can find a solution to any problem.
5. Whenever one solution fails, I generate another.
6. I always plan in advance for alternatives to any given problem/solution.
7. I often change my approach to any task once I have found a more effective solution.

Goal Orientation.

1. I accomplish the most when I prioritize my goals.
2. When I arrive at work, I know what I will do first.
3. I rarely need more time to accomplish what I have planned to do.
4. When I identify my goals, I usually succeed.
5. I never quit a project that I begin.
6. I always set achievable goals and quickly accomplish them.
7. I am constantly planning projects to work on and complete.
8. Before I start a project, I know what I must do to complete it.

Persistence.

1. I always strive to do my best.
2. When I stick with a project, I usually complete it.
3. I know if I try hard enough, I will succeed
4. No matter how long it takes, I always finish the task.
5. I attribute my overall success to persistent effort.
6. I always work on a problem until I find a solution.

7. Once I start a project, it is difficult for me to stop.

Self-Confidence.

1. I am confident that once I have decided how to proceed, I will be successful.
2. Regardless of the difficulty of the task, I know I will succeed.
3. The greater the difficulty, the more I enjoy the task.
4. I know a great deal about how to manage my life.
5. I rarely wait for approval before beginning a project.
6. Among my colleagues I often am able to make the best decisions.
7. I frequently succeed on projects that most others abandon.
8. I usually set achievable goals and quickly accomplish them.
9. I believe that I can achieve, and as a result I do.
10. I know that I will be successful.
11. I require very little external motivation.
12. I fully enjoy my work and my life.

Self-Control.

1. I achieve more when I work alone.

2. I am very good about sticking to time schedules.
3. I achieve more when I plan my time carefully.
4. I am succeeding because I want to succeed.
5. I am always working on personal development plans because the more I improve myself, the more I accomplish.
6. The better that I manage the stress in my life, the more effective I can be as a person.
7. When I keep my energy level in balance every day, I feel terrific and accomplish much.

The item numbers that relate to the a priori scales are contained in Table 20.

The design selected for the attitudes scale was a modified Likert scale. Aiken (1971:232) believes that "it is probably better for an investigator to construct his own scale rather than administer a scale designed for a specific purpose in another situation." Since a review of the literature produced no attitude scales relating specifically to the concept of independent learning, it was necessary to develop a new scale. According to Stamps and Piedmonte (1986:25)

> The first step in constructing an attitude scale is in many ways the most critical one. The classical literature reveals several possible ways of measuring attitudes, each of which relies on a particular theoretical framework. It is important to select one

Table 20

Number and Distribution of Item Numbers on the Ten *A Priori* Scales Comprising the Initial Student Attitudes Toward Independent Learning Survey

A Priori Scales	Distribution of Item Numbers	N
Ambition	1, 11, 21, 31, 41, 51, 61, 69, 74	9
Creativity	3, 13, 23, 33, 43, 53, 63, 71, 76	9
Curiosity	8, 18, 28, 38, 48, 58, 67	7
Decisiveness	7, 17, 27, 37, 47, 57	6
Enthusiasm	9, 19, 29, 39, 49, 59, 68	7
Flexibility	10, 20, 30, 40, 50, 60, 73	7
Goal Orientation	5, 15, 25, 35, 45, 55, 65, 72	8
Persistence	4, 14, 24, 34, 44, 54, 64	7
Self-Confidence	2, 12, 22, 32, 42, 52, 62, 70, 75, 77, 78, 79	12
Self-Control	6, 16, 26, 36, 46, 56, 66	7
Total		79

such framework for measuring attitudes and then to follow the specific design criteria for it. Otherwise it is not possible to proceed with statistical validation. Since a scale is quite different from a questionnaire, the issues of reliability and validity are important.

Anastasi (1982:552) further elaborates that

> Attitude scales . . . typically yield a total score indicating the direction and intensity of the individual's attitude toward a company, group of people, policy, or other stimulus category. In the construction of an attitude scale, the different questions are designed to measure a single attitude or unidimensional

> variable, and some objective procedures are usually followed in the effort to approach this goal.

The modified Likert scale was used in the construction of this attitude scale because of the relative ease in analyzing the data.

Attitude Scale Decisions. With regard to attitude scale decisions, two decisions were made. The first was to arrange statements by content area randomly throughout the scale. This was done so the respondent would be unaware of the component being tested. See Table 20. With regard to student knowledge about test questions, Mager (1968:78) asks "If students know we are asking 'attitude' questions, can't they fake their responses? Isn't the student merely going to tell us what he thinks we want to hear?" The initial survey instrument utilized in this investigation with PHE students was simply labeled "Student Survey" so as to help prevent students from "faking their responses." Accordingly, Mager (1968:78) states that

> the honesty with which a student will answer the items on a questionnaire partly depends on how well he trusts the person who is doing the asking. If there is little trust, the student will do his best to give what he thinks are appropriate answers; that is, answers that will do him as little damage as possible. If there is a great deal of trust, the student feels no need to conceal his true opinions and he will be more likely to respond accurately.

Since cluster coordinators were selected on the basis of their communication skills, expertise in their field, and genuine interest in students, it is assumed that the coordinators were able to influence an accurate student response.

The second design decision related to the response format. A five-point response scale was used. This allowed respondents to express five distinctions in their response. The instructions given to respondents for completing the "Student Survey" were as follows:

> Please respond to the items on this questionnaire by indicating your perception of how each best describes you. On the separate answer sheet blacken one of the numbers from one to five with a number two pencil. Consider the five point scale as a continuum from "least like you" to "most like you" with one being "least like you" and five being "most like you." See Appendix B.

Administration of Scale to PHE Students

On March 26, 1987 a cover letter describing the "Student Survey" (the initial instrument used to assess student attitudes toward independent learning) was mailed to 12 cluster coordinators throughout the nation. See Table 18. The cover letter did not mention that the purpose of the survey was to measure student attitudes toward independent learning. It stated that the intent was to "look for ways to assist students in completing the program." In addition, the initial scale was simply titled "Student Survey" to avoid the possibility of response bias. See Appendix D.

Attached to the cover letter was the survey, the instructions for completing the survey (see Appendix D) and enough computer scoreable answer sheets for all first and second year Ed.D. students in each respective cluster. A large pre-addressed return envelope was enclosed in the

mailing to the 12 cluster coordinators to facilitate the return of the clusters' computer scoreable answer sheets. The cluster coordinators were instructed to have each student in the cluster complete the survey answer sheet during the April cluster meeting and then return all answer sheets to Nova Central as soon as possible thereafter. Table 18 lists the number of PHE students surveyed by cluster and the number and percent of respondents by cluster.

Factor Analysis of Data

According to Kaplan and Saccuzzo (1982:80), "factor analysis is used to study the interrelationships among a set of variables without reference to a criterion." In short, it is a data reduction technique. It comprises three steps.

The first step in the factor analysis involved "the calculation of appropriate measures of association for a set of relevant variables" (Nie, Hull, Jenkins, Steinbrenner, and Bent, 1975:470). The relevant variables that were utilized for this factor analysis were the 79 items that comprised the initial attitude scale.

The second step in the factor analysis involved the exploration of data-reduction possibilities

> by constructing a set of new variables on the basis of the interrelations exhibited in the data. In doing so, the new variables may be defined as exact mathematical transformations of the original data, or inferential assumptions may be made about the structuring of variables and their source of variation. The former approach, which uses defined factors, is called principal-component analysis. Whether factors are

> exactly defined or are inferred, initial factors are usually extracted in such a way that one factor is independent from the other; that is, factors are orthogonal (Nie, Hull, Jenkins, Steinbrenner, and Bent, 1975:470).

The third step in the factor analysis involved the rotation of factors into terminal factors. For the purpose of this investigation an orthogonal rotational, varimax method was chosen to arrive at a terminal solution because orthogonal factors are mathematically simpler to handle.

> In contrast to quartimax, which centers on simplifying the rows of a factor matrix, the varimax criterion centers on simplifying the columns of a factor matrix . . . varimax defines a simple factor as one with only 1s and 0s in the column. Such a simplification is equivalent to maximizing the variance of the squared loadings in each column; hence the name varimax (Nie, Hull, Jenkins, Steinbrenner, and Bent, 1975:485).

The orthogonal rotation, varimax procedure resulted in a univariate variance, therefore, 96 percent of the items described one factor. The factor loadings resulting from the three factor solution are contained in Table 21. It may be seen that all but three items (65, 71, and 42) loaded on factor one. An examination of the intercorrelations supported the univariate variance since the coefficients were positive and in a majority of the cases high. The criteria utilized for the development of the final scale involved only those items with factor loadings of .613 and above. The final instrument consists of 50 of the original 79 items. The instrument Adult Attitudes Toward Independent Learning Scale (AATILS Questionnaire) and the instructions for administering the instrument appear in Appendix E.

Table 21

Factor Loadings of the Three Factor Solution for the 79 Items

Item	Factor 1	Factor 2	Factor 3
35	.791	-.375	-.149
36	.787	-.275	-.131
14	.785	-.269	-.252
75	.776	-.135	.249
47	.756	-.180	.016
33	.755	-.115	-.180
77	.738	-.105	.192
34	.737	-.360	-.085
12	.737	.018	-.146
32	.734	-.163	-.032
43	.733	-.048	-.177
44	.731	-.221	-.115
17	.729	-.032	-.321
2	.726	-.354	-.140
50	.723	.135	.006
63	.720	.161	.001
24	.716	-.435	-.041
13	.708	.210	-.313
5	.703	-.268	-.046
62	.697	.121	.291
3	.695	.074	-.342
7	.694	.008	-.167

Table 21 (Cont.)

Item	Factor 1	Factor 2	Factor 3
10	.690	-.148	-.219
46	.690	-.114	.101
37	.689	.008	-.322
76	.686	.106	.349
8	.685	.067	-.311
54	.685	-.182	.129
11	.683	.172	-.161
70	.681	-.093	.481
52	.681	.105	.047
4	.680	-.329	-.218
9	.679	-.126	-.144
57	.673	-.025	.107
69	.669	.060	.286
21	.666	.314	-.291
78	.664	.036	.221
66	.664	.091	.399
23	.659	.249	-.202
18	.658	.162	-.207
45	.654	-.239	.020
64	.653	-.004	.278
51	.649	.048	.071
73	.647	.081	.184
26	.636	-.333	.116
74	.624	.074	.271

Table 21 (Cont.)

Item	Factor 1	Factor 2	Factor 3
40	.623	-.014	.105
16	.620	-.306	.187
38	.615	.087	-.164
79	.615	-.071	.048
56	.613	-.272	.176
20	.609	.264	-.211
41	.598	.378	-.118
60	.596	.162	-.129
39	.592	.024	-.129
30	.586	.042	-.037
31	.577	.250	-.321
69	.552	.113	.328
59	.549	.008	-.000
1	.549	-.100	.076
15	.545	-.192	.080
55	.543	-.231	.353
61	.541	.380	.028
58	.530	.210	.014
25	.521	-.121	.151
19	.511	-.088	-.180
22	.502	.338	-.247
27	.496	.124	-.090
49	.490	.335	.125
53	.469	.118	.095

Table 21 (Cont.)

Item	Factor 1	Factor 2	Factor 3
72	.461	.032	.332
6	.446	.021	.074
29	.422	.396	-.040
48	.417	.269	-.053
65	.489	.615	.156
71	.534	.585	.236
42	.291	.469	-.121
28	.365	.372	.076
67	.400	.135	.410

Reliability of the Final Instrument

The reliability of the final instrument was estimated by the Guttman split-half method. "In split-half reliability, a test is given and divided into halves that are scored separately. We then compare the results of one half of the test with the results of the other" (Kaplan and Saccuzzo, 1982:96). The "AATILS Questionnaire" was administered to 50 adult evening students enrolled in Nova College during the summer session of 1987. The reliability coefficient was .94.

Final Instrument

The final instrument is composed of 50 items that resulted from the examination of the factor loadings. Since

these 50 items were selected as a result of the factor analysis and were interpreted to describe one scale, the instrument appears to have construct validity. As mentioned earlier, the reliability coefficient was .94. Therefore, the final form of the instrument being both valid and reliable is appropriate to measure the attitudes toward independent learning of adult students.

Chapter 4

PRESENTATION OF RESULTS

The ten a priori scales: (1) ambition, (2) creativity, (3) curiosity, (4) decisiveness, (5) enthusiasm, (6) flexibility, (7) goal orientation, (8) persistence, (9) self-confidence, and (10) self-control, and the corresponding 79 items that comprised the initial student attitudes toward independent learning survey ("Student Survey") are listed in Chapter 3. The means and standard deviations of the "Student Survey" items appear in Appendix F. The highest mean for any of the 79 items was item 14 with a mean of 4.53. The content of that item was, "When I stick with a project, I usually complete it." The lowest mean for any of the 79 items was item 25 with a mean of 3.17. The content of that item was, "I rarely need more time to accomplish what I have planned to do."

The number and distribution of items on the ten a priori scales that comprise the final instrument appear in Table 22. Upon inspection of Table 22 it is realized that all of the ten a priori scales are represented in the final instrument. However, three of the a priori scales experienced considerable item reduction. The a priori scales on the final instrument that have an item N of three or less are: (1) curiosity, (2) enthusiasm, and (3) goal

Table 22

Number and Distribution of Items on the Ten A Priori Scales Comprising the "AATILS Questionnaire" (Final Instrument)

A Priori Scales	Distribution of Items	N
Ambition	11, 21, 51, 69, 74	5
Creativity	3, 13, 23, 33, 43, 63, 76	7
Curiosity	8, 18, 38	3
Decisiveness	7, 17, 37, 47, 57	5
Enthusiasm	9	1
Flexibility	10, 40, 50, 73	4
Goal Orientation	5, 45, 55	3
Persistence	4, 14, 24, 34, 44, 54, 64	7
Self-Confidence	2, 12, 32, 52, 62, 70, 75, 77, 78, 78	10
Self-Control	16, 26, 36, 46, 66	5
Total		50

orientation. It is not known exactly why those a priori scale items experienced lower scores. Perhaps the wording of the deleted items was awkward or unclear.

As a result of the factor analysis data reduction technique, 29 of the original 79 items were eliminated and were not included in the final instrument ("AATILS Questionnaire"). Therefore, the final instrument is composed of 50 items. See Appendix E. As was mentioned previously in Chapter 3, only items with factor loadings of

.613 and above were included in the 50 item final instrument. Because the result of the factor analysis (orthogonal rotation, varimax procedure) of the initial 79 item instrument described one factor. The instrument appears to have construct validity. According to Best (1981:198), an explanation of construct validity

> is the degree to which scores on a test can be accounted for by the explanatory constructs of a sound theory. If one were to study such a construct as dominance, one would hypothesize that people who have this characteristic will perform differently from those who do not. Theories can be built describing how dominant people can be identified by observation of their behavior, rating or classifying them in terms of the theory. A test could then be designed to have construct validity to the degree that the test scores are systematically related to the judgments made by observation of behavior identified by the theory of dominant.

In this example of construct validity, Best (1981) describes how a test could be designed to measure the construct of dominance. Likewise, for the purpose of this investigation, the "AATILS Questionnaire" was designed to measure the construct of adult attitudes toward independent learning. Because the end result of the factor analysis indicated that 96 percent of the initial 79 items described one factor, a univariate variance was found. Because there was a high intercorrelation between the 79 items, this finding was not surprising. Since one empirical scale resulted from the factor analysis that was composed of items from each of the original 10 a priori scales, the scale appears to indeed measure the attitudes of adults toward independent learning. Because the 10 a priori scales were

developed as a result of a review of the literature and numerous discussions with the Programs for Higher Education students, faculty, cluster coordinators, major applied research project (MARP) advisors, research fellows, and Nova Central administrators, it is logical to assume that the items contained in the 10 a priori scales in fact measured the construct of adult attitudes toward independent learning. In addition, the a priori scale items seem to be representative of distinct prerequisite skills that appear to be critical components of independent learning (self-directed learning).

As a result of a content analysis of the 10 a priori scales and their respective items, the following prerequisite skills are paired with the a priori scale categories:

A-Priori Scale Categories	Prerequisite Skills
1. Ambition	Positive Thinking Goal Setting Active Orientation
2. Creativity	Active Orientation Decision Making Time Management
3. Curiosity	Assertive Active Orientation Creative Inquisitive Problem Solving
4. Decisiveness	Active Orientation Creative Problem Solving
5. Enthusiasm	Positive Thinking Human Energy Building Active Orientation

6.	Flexibility	Active Orientation Creative Problem Solving Positive Thinking
7.	Goal Orientation	Time Management Procrastination Control Decision Making Positive Thinking
8.	Persistence	Positive Thinking Active Orientation Problem Solving
9.	Self-Confidence	Decision Making Problem Solving Assertive Positive Thinking
10.	Self-Control	Time Management Positive Thinking Stress Management Human Energy Building Personal Development

The skill areas that were paired with the 10 a priori scale categories are: (1) active orientation, (2) assertiveness, (3) decision making, (4) goal setting, (5) human energy building, (6) personal development improvement planning, (7) positive thinking, (8) procrastination control, (9) problem solving, and (10) time management. Further discussion of these skill areas will take place in Chapter 5.

The reliability of the final instrument ("AATILS Questionnaire") was estimated by the Guttman split-half method with a resulting reliability coefficient of .94 and since the result of the factor analysis indicated that the items described one scale, the final form of the AATILS is

considered both reliable and valid. Therefore, the AATILS appears to be an appropriate instrument to measure the attitudes toward independent learning of the Programs for Higher Education adult students.

Chapter 5

INTERPRETATIONS, CONCLUSIONS, AND RECOMMENDATIONS

The purpose of this chapter is to discuss additional interpretations of the findings, draw conclusions from the results, and make salient recommendations that may serve the Nova University Programs for Higher Education central administrative and field staff in promoting the notion of independent (self-directed) learning among its field based doctoral students. In addition, strategies for diffusion, implementation, and improvement will be outlined.

Interpretations

The orthogonal rotation, varimax procedure (factor analysis) resulted in a univariate variance with 96 percent of the initial 79 items of the "Student Survey" describing one factor. Seventy-six items loaded on one factor. Therefore, the factor analysis indicated that there was item redundancy. Thus, the a priori scales were not discrete scales, they were highly correlated. It may also be interpreted to mean that the valid and reliable final instrument "AATILS Questionnaire" may be appropriate for the Nova University Programs for Higher Education adult students in determining their attitudes toward independent learning. In addition, the "AATILS Questionnaire" may be suitable as a diagnostic instrument for all adult learner populations.

Conclusions

The development of the "AATILS Questionnaire" accomplished the primary purpose of this investigation. That is, to develop a valid and reliable instrument that could assess adult attitudes toward independent learning and that, therefore, may serve the Programs for Higher Education central administrative and field staff in counseling new students who have exhibited less positive or negative attitudes toward independent learning.

The early identification of PHE students who exhibit low attitudes toward independent learning will allow the PHE central administrative and field staff to provide these students with optional learning experiences that are designed to reinforce a high independent learning style. Some of the learning experiences will no doubt involve prerequisite kill areas such as: (1) time management, (2) goal setting, (3) problem solving, (4) environmental shaping, (5) values clarification, (6) study and research skills, (7) personal development improvement planning, (8) student resource management, (9) positive thinking, (10) active orientation, (11) procrastination control, (12) decision making, (13) assertiveness, (14) listening, (15) team building, (16) stress management/relaxation training, (17) human energy building, etc. See Appendix C. Just because people attain an adult chronological age, a master's degree, and a professional position does not ensure that they have refined all of the prerequisite skills that are

considered important to a high independent learning style. With this thought in mind, the "Nova University Programs for Higher Education Professional/Personal/Student Self-Assessment Skill Instrument" was developed. See Appendix G. This instrument allows the PHE students to decide for themselves what their skill strengths are and also what their skill weaknesses are. Of course, students must be willing to evaluate themselves critically if they are to identify those skill areas in need of refinement. Once skill areas in need of refinement are identified, it is important for students to develop and initiate a plan of action. A sample plan of action form is located in Appendix H. An explanatory letter accompanying the self-assessment skill instrument will help students to understand the interrelationships of the stated skill areas with the idealized high independent learning style.

Recognized that it takes most Nova University Programs for Higher Education field-based doctoral students longer than the suggested three year period to complete the Ed.D. degree was one reason for this investigation on the attitudes of adults toward independent learning. According to George Barton, former Director of Instruction for the Nova University PHE, it takes the average PHE student approximately 5.1 years to complete all Ed.D. requirements (Kole, 1986:1). In addition, to further document the notion that most PHE field-based students exceed the recommended

three year time period are the results of the "Student Progress on Practicums Questionnaire." See Appendix I.

> It was found that at the end of two years in the program, the mean number of practicum proposals completed by all students was 2.07 and the mean number of practicums completed was 1.28 (Barton, 1986).

Five practicum proposals and five practicums are required to complete the Ed.D. degree and are in addition to the major applied research project (MARP), five core seminars, two specialization seminars, and the comprehensive examination. See Appendix J. Because all of the Programs for Higher Education field-based doctoral students are also full-time professionals working in various institutions of higher education with family responsibilities, etc., perhaps it is somewhat ambitious to assume that most of these professionals can complete the Nova PHE Ed.D. requirements within a three year time period. Maybe a four year time period is more realistic.

On the other hand, perhaps a large number of PHE students have low attitudes toward independent "writing." Because there are extensive writing requirements for the Nova PHE Ed.D. degree, this is most likely the area that delays a large number of students from completing their degree requirements in a timely manner. If this is true, then the PHE central office administration should consider some expansion of educational programs in the writing component area.

Another reason for this investigation on the attitudes of adults toward independent learning relates to

the estimated 60 percent PHE attrition rate. Although the literature supports the idea of a relatively high attrition rate for institutions with open admissions policies, some questions must be asked: (1) How high should Nova's PHE attrition rate be? (2) To what extent is the attrition rate related to low ability? (3) To what extent is the attrition rate related to low attitudes toward independent learning? There is, no doubt, room for further research in this area. In conclusion, the "AATILS Questionnaire" should provide the Programs for Higher Education administration and students with timely information regarding the adult students' attitudes toward independent learning. During the suggested three year period, the PHE should consider developing and offering educational programs that focus on promoting the independent learning skills and attitudes of its students. In addition, the PHE should explore the idea of developing a comprehensive student advisement office to assist all program personnel in meeting the diversified needs of its students.

Recommendations

In an effort to assess the differences in independent learning styles (high, medium, and low) among first and second year field-based doctoral students in the Nova University Programs for Higher Education, the following recommendations are suggested for implementation during the next three year period.

September, 1987

1. A designated Programs for Higher Education research fellow should send all local cluster coordinators the following materials by September 30, 1987.
   a. A cover letter from the Director of the PHE explaining the nature of the AATILS research, and a request for their cooperation with the data collection.
   b. Fifty reusable "AATILS Questionnaires" will be sent to each cluster coordinator. These questionnaires should last the duration of the three year research project. See Appendix E.
   c. "Instructions for the Administration of the Adult Attitudes Toward Independent Learning Scale." See Appendix E.
   d. A packet of approximately 100 "Scantron Form 882-N" computer scoreable forms should last the duration of the three year research project.
   e. A large pre-addressed envelope to return the completed scantron forms.

The PHE research fellow assigned to the AATILS research project should coordinate the computer center processing of the completed AATILS scantron forms (in November). Mean scores should be determined separately for

first year students and second year students. The second year students' results of the AATILS should be categorized according to the different levels of program success as indicated in recommendation 4. Therefore, the second year students' results of the AATILS will serve as base-line data from which to predict the Ed.D. program success of newly enrolled first year PHE students.

2. Each local cluster coordinator should administer the AATILS (Adult Attitudes Toward Independent Learning Scale) to all first and second year Programs for Higher Education students during the first Fall 1987 cluster meeting. If necessary, the regional cluster students should be sent the AATILS individually through the mail. The research fellow should contact the regional cluster coordinator to discuss details of AATILS administration. After such discussion, it may well be decided that the research fellow should implement the regional cluster mailing from Nova Central.

October, 1987

3. Each cluster coordinator should return the completed AATILS scantron forms in the large pre-addressed envelope provided them by the PHE research fellow as soon as possible after the cluster meeting. Cluster coordinators need not return the "AATILS Questionnaires" as they will

be reused during subsequent AATILS administrations in their clusters.

November, 1987

4. The PHE research fellow should identify mean scores of second year students who have achieved different levels of success in the PHE. Programs for Higher Education students success may be defined as high, medium, or low. In order to simplify the interpretation of the various student success criteria, only high and low success criteria will be suggested. However, medium success can be interpreted to mean the student performance results that falls between the high and low success criteria. Therefore, PHE student success may be defined as follows.

After One Year in the PHE

High Success.

a. The student will have satisfactorily completed a minimum of three seminars with a grade of "Pass."

b. The student will have satisfactorily completed a minimum of two practicum proposals.

c. The student will have satisfactorily completed a minimum of two practicums.

Low Success.

a. The student will have satisfactorily completed one seminar or less with a grade of "Pass."
b. The student will have satisfactorily completed one practicum proposal or less.
c. The student will have satisfactorily completed no practicums.

After Two Years in PHE

High Success.

a. The student will have satisfactorily completed a minimum of six seminars with a grade of "Pass."
b. The student will have satisfactorily completed a minimum of five practicum proposals.
c. The student will have satisfactorily completed a minimum of four practicums.
d. The student will be eligible to take the comprehensive examination.

Low Success.

a. The student will have satisfactorily completed three seminars or less with a grade of "Pass."
b. The student will have satisfactorily completed three or less practicum proposals.

c. The student will have satisfactorily completed one practicum or less.

d. The student will not be eligible to take the comprehensive examination.

5. The PHE research fellow should then differentiate the mean scores of students on the AATILS according to the different levels of success in the PHE as indicated in recommendation 4. The research fellow can also determine at this time the ranges of scores within each of the success criteria for second year students.

6. Every November (1987, 1988, and 1989), a research fellow should analyze the AATILS data by computing means and standard deviations for PHE students within each success category. Every time a research fellow computes the means for each success category, the means should be compared to the previously established means for success categories. If there is no significant difference found between the means, no adjustment in score ranges will need to be made. If, however, there is a significant difference found in the compared means of any student success category, it would be necessary to adjust the score ranges. Finally, an attempt

will be made to determine a consistency in the predictability of the instrument.

December, 1987

7. The PHE research fellow should send a comprehensive report of the AATILS results of all first and second year students to each cluster coordinator. Included in the report should be the AATILS score ranges for each success category and the raw scores on the AATILS for each new student. The cluster coordinator will provide each student with their raw score.

1987, 1988, and 1989

8. It is recommended that the above procedures be repeated with all incoming PHE students during the ensuing three years (1987, 1988, and 1989). It is anticipated that these procedures will establish consistency in the predictability of the instrument.

Diffusion, Implementation, and Improvement

As a result of the aforementioned procedures, it should be possible for the Programs for Higher Education central office and field staff to administer the AATILS to all incoming PHE students and as a result of such AATILS administrations, to identify those students who are likely

to experience difficulty in achieving success in the field-based Ed.D. program.

Being able to identify newly enrolled PHE students who demonstrate low attitudes toward independent learning on the AATILS will allow the PHE central office and field staff to develop and offer to these students educational programs that aim to reinforce positive attitudes toward independent learning. Therefore, the opportunity for many of these students to complete the Nova University Programs for Higher Education field-based Ed.D. program in a timely manner will be enhanced. In addition, the Programs for Higher Education, in attempting to meet the learning needs of its adult student population will in a sense be contributing to the body of knowledge in the field of education and human development.

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APPENDIXES

APPENDIX A

THE SELF-DIRECTED LEARNING READINESS SCALE (QUESTIONNAIRE) AND ANSWER SHEET

Name _____ Sex _____ Birthdate _____

Date of Testing _____ Location of Testing _____

QUESTIONNAIRE

INSTRUCTIONS: This is a questionnaire designed to gather data on learning preferences and attitudes towards learning. After reading each item, please indicate the degree to which you feel that statement is true of you. Please read each choice carefully and circle the number of the response which best expresses your feeling.

There is no time limit for the questionnaire. Try not to spend too much time on any one item, however. Your first reaction to the question will usually be the most accurate.

ITEMS:	RESPONSES				
	Almost never true of me; I hardly ever feel this way.	Not often true of me; I feel this way less than half the time.	Sometimes true of me; I feel this way about half the time.	Usually true of me; I feel this way more than half the time.	Almost always true of me; there are very few times when I don't feel this way.
1. I'm looking forward to learning as long as I'm living.	1	2	3	4	5
2. I know what I want to learn.	1	2	3	4	5
3. When I see something that I don't understand, I stay away from it.	1	2	3	4	5
4. If there is something I want to learn, I can figure out a way to learn it.	1	2	3	4	5
5. I love to learn.	1	2	3	4	5
6. It takes me a while to get started on new projects.	1	2	3	4	5
7. In a classroom, I expect the teacher to tell all class members exactly what to do at all times.	1	2	3	4	5
8. I believe that thinking about who you are, where you are, and where you are going should be a major part of every person's education.	1	2	3	4	5
9. I don't work very well on my own.	1	2	3	4	5

	Almost never true of me: I hardly ever feel this way.	Not often true of me: I feel this way less than half the time.	Sometimes true of me: I feel this way about half the time.	Usually true of me: I feel this way more than half the time.	Almost always true of me: there are very few times when I don't feel this way.
10. If I discover a need for information that I don't have, I know where to go to get it.	1	2	3	4	5
11. I can learn things on my own better than most people.	1	2	3	4	5
12. Even if I have a great idea, I can't seem to develop a plan for making it work.	1	2	3	4	5
13. In a learning experience, I prefer to take part in deciding what will be learned and how.	1	2	3	4	5
14. Difficult study doesn't bother me if I'm interested in something.	1	2	3	4	5
15. No one but me is truly responsible for what I learn.	1	2	3	4	5
16. I can tell whether I'm learning something well or not.	1	2	3	4	5
17. There are so many things I want to learn that I wish that there were more hours in a day.	1	2	3	4	5
18. If there is something I have decided to learn, I can find time for it, no matter how busy I am.	1	2	3	4	5
19. Understanding what I read is a problem for me.	1	2	3	4	5
20. If I don't learn, it's not my fault.	1	2	3	4	5
21. I know when I need to learn more about something.	1	2	3	4	5
22. If I can understand something well enough to get a good grade on a test, it doesn't bother me if I still have questions about it.	1	2	3	4	5
23. I think libraries are boring places.	1	2	3	4	5
24. The people I admire most are always learning new things.	1	2	3	4	5

	Almost never true of me: I hardly ever feel this way.	Not often true of me: I feel this way less than half the time.	Sometimes true of me: I feel this way about half the time.	Usualy true of me: I feel this way more than half the time.	Almost always true of me: there are very few times when I don't feel this way
25. I can think of many different ways to learn about a new topic.	1	2	3	4	5
26. I try to relate what I am learning to my long-term goals.	1	2	3	4	5
27. I am capable of learning for myself almost anything I might need to know.	1	2	3	4	5
28. I really enjoy tracking down the answer to a question.	1	2	3	4	5
29. I don't like dealing with questions where there is not one right answer.	1	2	3	4	5
30. I have a lot of curiosity about things.	1	2	3	4	5
31. I'll be glad when I'm finished learning.	1	2	3	4	5
32. I'm not as interested in learning as some other people seem to be.	1	2	3	4	5
33. I don't have any problem with basic study skills.	1	2	3	4	5
34. I like to try new things, even if I'm not sure how they will turn out.	1	2	3	4	5
35. I don't like it when people who really know what they're doing point out mistakes that I am making.	1	2	3	4	5
36. I'm good at thinking of unusual ways to do things.	1	2	3	4	5
37. I like to think about the future.	1	2	3	4	5
38. I'm better than most people are at trying to find out the things I need to know.	1	2	3	4	5
39. I think of problems as challenges, not stopsigns.	1	2	3	4	5
40. I can make myself do what I think I should.	1	2	3	4	5

	Almost never true of me; I hardly ever feel this way.	Not often true of me; I feel this way less than half the time.	Sometimes true of me; I feel this way about half the time.	Usually true of me; I feel this way more than half the time.	Almost always true of me; there are very few times when I don't feel this way.
41. I'm happy with the way I investigate problems.	1	2	3	4	5
42. I become a leader in group learning situations.	1	2	3	4	5
43. I enjoy discussing ideas.	1	2	3	4	5
44. I don't like challenging learning situations.	1	2	3	4	5
45. I have a strong desire to learn new things.	1	2	3	4	5
46. The more I learn, the more exciting the world becomes.	1	2	3	4	5
47. Learning is fun.	1	2	3	4	5
48. It's better to stick with the learning methods that we know will work instead of always trying new ones.	1	2	3	4	5
49. I want to learn more so that I can keep growing as a person.	1	2	3	4	5
50. I am responsible for my learning — no one else is.	1	2	3	4	5
51. Learning how to learn is important to me.	1	2	3	4	5
52. I will never be too old to learn new things.	1	2	3	4	5
53. Constant learning is a bore.	1	2	3	4	5
54. Learning is a tool for life.	1	2	3	4	5
55. I learn several new things on my own each year.	1	2	3	4	5
56. Learning doesn't make any difference in my life.	1	2	3	4	5
57. I am an effective learner in the classroom and on my own.	1	2	3	4	5
58. Learners are leaders.	1	2	3	4	5

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SIDE 1

GENERAL PURPOSE - NCS® - ANSWER SHEET

FOR USE WITH ALL NCS SENTRY OPTICAL MARK READING SYSTEMS
SEE IMPORTANT MARKING INSTRUCTIONS ON SIDE 2

NAME (Last, First, MI)

SEX (M) (F)

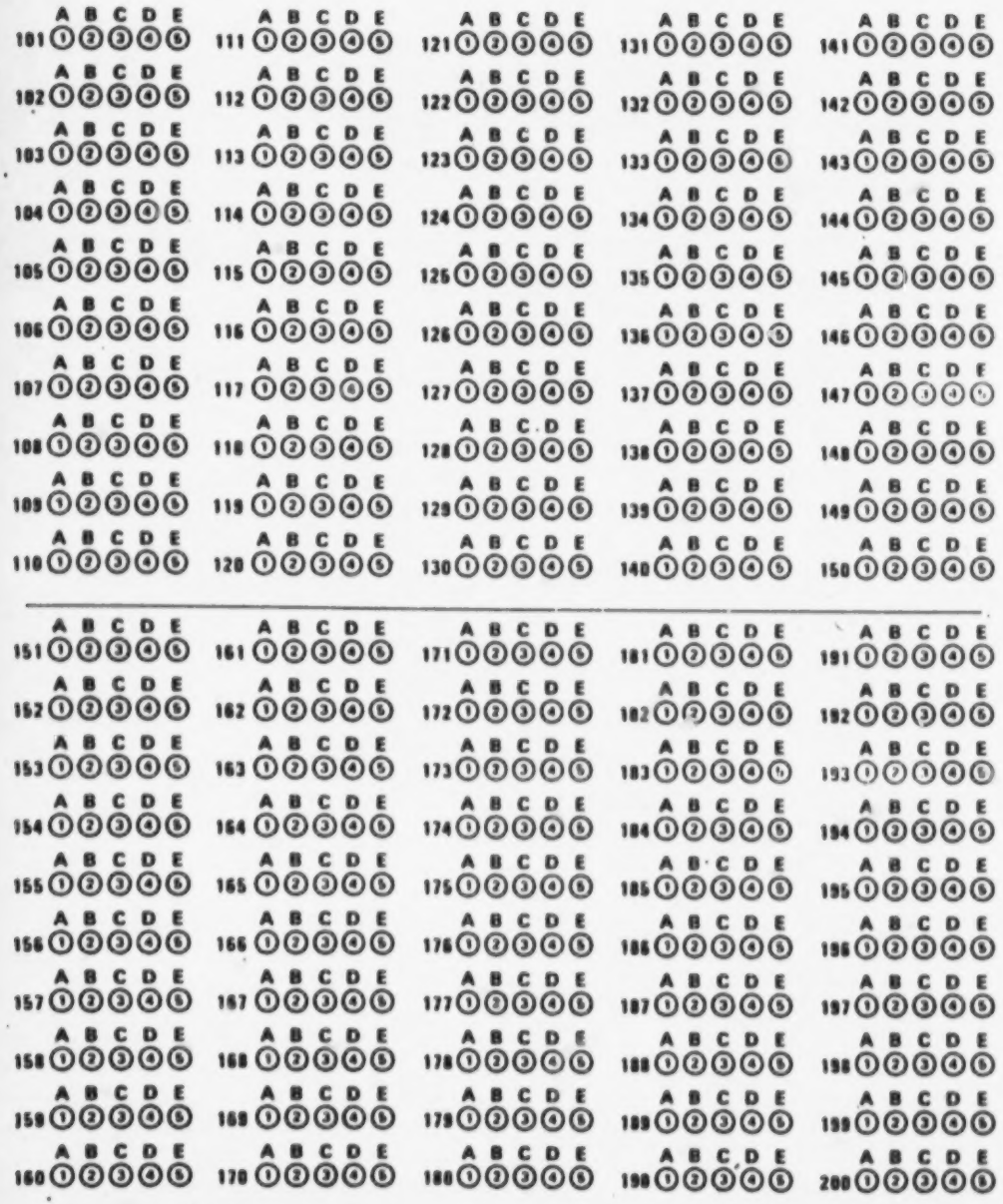
GRADE OR EDUC 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

BIRTH DATE			IDENTIFICATION NUMBER										SPECIAL CODES					
MO.	DAY	YR.	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Jan																		
Feb																		
Mar	0 0	0 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apr	1 1	1 1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
May	2 2	2 2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Jun	3 3	3 3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Jul	4 4	4 4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Aug	5 5	5 5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Sep	6 6	6 6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Oct	7 7	7 7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
Nov	8 8	8 8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
Dec	9 9	9 9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9

1 A B C D E	11 A B C D E	21 A B C D E	31 A B C D E	41 A B C D E
2 A B C D E	12 A B C D E	22 A B C D E	32 A B C D E	42 A B C D E
3 A B C D E	13 A B C D E	23 A B C D E	33 A B C D E	43 A B C D E
4 A B C D E	14 A B C D E	24 A B C D E	34 A B C D E	44 A B C D E
5 A B C D E	15 A B C D E	25 A B C D E	35 A B C D E	45 A B C D E
6 A B C D E	16 A B C D E	26 A B C D E	36 A B C D E	46 A B C D E
7 A B C D E	17 A B C D E	27 A B C D E	37 A B C D E	47 A B C D E
8 A B C D E	18 A B C D E	28 A B C D E	38 A B C D E	48 A B C D E
9 A B C D E	19 A B C D E	29 A B C D E	39 A B C D E	49 A B C D E
10 A B C D E	20 A B C D E	30 A B C D E	40 A B C D E	50 A B C D E

51 A B C D E	61 A B C D E	71 A B C D E	81 A B C D E	91 A B C D E
52 A B C D E	62 A B C D E	72 A B C D E	82 A B C D E	92 A B C D E
53 A B C D E	63 A B C D E	73 A B C D E	83 A B C D E	93 A B C D E
54 A B C D E	64 A B C D E	74 A B C D E	84 A B C D E	94 A B C D E
55 A B C D E	65 A B C D E	75 A B C D E	85 A B C D E	95 A B C D E
56 A B C D E	66 A B C D E	76 A B C D E	86 A B C D E	96 A B C D E
57 A B C D E	67 A B C D E	77 A B C D E	87 A B C D E	97 A B C D E
58 A B C D E	68 A B C D E	78 A B C D E	88 A B C D E	98 A B C D E
59 A B C D E	69 A B C D E	79 A B C D E	89 A B C D E	99 A B C D E
60 A B C D E	70 A B C D E	80 A B C D E	90 A B C D E	100 A B C D E

SIDE 2



GENERAL PURPOSE
NCS®
ANSWER SHEET
form no. 4521

EXAMPLES	IMPORTANT DIRECTIONS FOR MARKING ANSWERS
WRONG 1 ① ⊗ ③ ④ ⑤	• Use #2 pencil only.
WRONG 2 ① ② ⊘ ④ ⑤	• Do NOT use ink or ballpoint pens.
WRONG 3 ① ② ③ ◕ ⑤	• Make heavy black marks that fill the circle completely.
RIGHT 4 ① ② ③ ● ⑤	• Erase cleanly any answer you wish to change.
	• Make no stray marks on the answer sheet.

DO NOT WRITE IN THIS SPACE

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APPENDIX B

NOVA Ed.D. STUDENT PROFESSIONAL/PERSONAL SKILL ENHANCEMENT SURVEY

NOVA Ed.D. STUDENT PROFESSIONAL\PERSONAL SKILL ENHANCEMENT PROGRAMS SURVEY

Instructions: Please indicate your interest in having each of the skill-based mini-programs listed below presented at the 1987 Summer Institute. Rate each item on a five point scale with five indicating most interested and one indicating least interested. Please use the enclosed computer scoreable answer sheet to express your rating of each item. Blacken in your choice (1-5) with a #2 pencil.

Skill Area:

1. Time Management
2. Goal Setting
3. Problem Solving
4. Environmental Shaping
5. Values Clarification
6. Study and Research
7. Personal Development Improvement Planning
8. Student Resource Management
9. Positive Thinking
10. Active Orientation
11. Procrastination Control
12. Decision Making
13. Assertiveness
14. Listening
15. Team Building
16. Stress Management\Relaxation Training
17. Human Energy Building

Note: Please return your answer sheet to your cluster coordinator. Thank you for your cooperation.

APPENDIX C

1987 SUMMER INSTITUTE PROFESSIONAL/PERSONAL
SKILL ENHANCEMENT PROGRAMS SURVEY COVER LETTER

Nova University
CENTER FOR THE ADVANCEMENT OF EDUCATION
Programs for Higher Education
3301 College Avenue, Fort Lauderdale, Florida 33314 • 305/475-7380

MEMORANDUM

TO: All First and Second Year Ed.D. Students

FROM: James P. Kole, Research Fellow JK

DATE: February 9, 1987

SUBJECT: 1987 Summer Institute Professional/Personal Skill Enhancement Programs Survey

The theme of the 1987 Summer Institute is "The Independent Learner: Processes for Success." The purpose of this survey is to seek your feedback regarding the possible offering of skill-development mini-programs at the summer institute that aim to enhance professional, student and personal effectiveness. If survey results indicate that such programs would be helpful, recognized experts in appropriate areas would be called on to make presentations. All students would then have the opportunity to choose to attend the presentations most relevant to their needs. The skill-development mini-programs can be classified under the following categories:

Organizational Skills

1. Time Management. An awareness of task priorities and time management strategies can help establish a balance with work, family, graduate study and recreation.

2. Goal Setting. Setting realistic and achievable goals can help instill feelings of success and foster progress toward the degree.

3. Problem Solving. Creative strategies for general problem solving can reduce frustration and increase feelings of independence and success.

4. Environmental Shaping. Modifying the environment (work, home, etc.) to meet individual needs can enhance productivity and personal comfort.

5. Values Clarification. Values clarification can help combat indecisiveness and procrastination and can improve academic performance.

6. Study and Research. Effective study and research skills can save time, increase academic success, and boost confidence.

7. Personal Development Improvement Planning. A personal development improvement plan can increase confidence, self-esteem and personal effectiveness.

over

8. Student Resource Management. A variety of resources (human and material) are available--effective utilization of these resources can enhance learning and increase academic success.

Cognitive Orientation Skills

9. Positive Thinking. The development of a "positive mind set" is a systematic process that can turn problems into challenges.

10. Active (versus passive) Orientation. Individuals who demonstrate an active orientation in life usually create self-motivation, are more successful and appear to be happier than passive individuals.

11. Procrastination Control. It is estimated by experts in the field that many adults spend large amounts of time avoiding important tasks and little time doing them.

12. Decision Making. Effective decision making involves organized and logical thinking that leads generally to positive outcomes.

Interpersonal Skills

13. Assertiveness. Effectively communicating with cluster coordinators, local research associates, national lecturers, peers, supervisors, etc., can facilitate progress in the Ed.D. program.

14. Listening. Effective listening can improve academic performance and personal relationships.

15. Team Building. "Core support group" recruitment and maintenance can help make learning enjoyable because students select and develop their own "team" (supervisors, peers, librarians, secretaries, family, etc.).

Wellness Skills

16. Stress Management/Relaxation Training. Identification of stressors in daily life situations and the adoption of appropriate coping skills can reduce the impact of physical and psychological stress, thus allowing energy to be focused on priorities.

17. Human Energy Building. A combination of proper diet, rest, exercise and thinking helps to keep energy constant and available for necessary tasks. Think of human energy being stored in an "energy bank." The goal is to maintain a balance between deposits and withdrawals.

The development and refinement of these various skills can greatly enhance the students' ability to complete the requirements of the Nova field-based Ed.D. degree in a timely manner.

Enclosures

APPENDIX D

STUDENT SURVEY COVER LETTER, INSTRUCTIONS FOR COMPLETING THE STUDENT SURVEY, AND THE STUDENT SURVEY

Nova University
CENTER FOR THE ADVANCEMENT OF EDUCATION
Programs for Higher Education
3301 College Avenue, Fort Lauderdale, Florida 33314 • 305/475-7380

MEMORANDUM

TO: Cluster Coordinators

FROM: George M. Barton GMB

DATE: March 26, 1987

SUBJECT: Student Survey

As you are aware, we are constantly looking for ways to assist students in completing the program. We are currently developing a questionnaire that we think will be helpful in this regard. If we are able to pinpoint specific trouble areas it will help in counseling students.

In the preliminary stage of the questionnaire development it is necessary to administer the questionnaire containing 79 items to a large group. Therefore, I would appreciate it if you would administer it to your cluster members. This is part of the estimation of construct validity. When we receive the responses, we will perform a factor analysis. It is hoped that we will be able to establish empirical factors that ultimately will be valuable in assessing student perceptions and subsequently assisting in their completing the program.

Please have each student complete the answer sheet with a number two pencil. As you will see, there is a corresponding number on the answer sheet for each of the items on the questionnaire. Once this has been completed, please place the answer sheets in the enclosed envelope and return it to me as soon as possible after the cluster meeting. I would appreciate it if you would administer this questionnaire at your April cluster meeting.

Although a number of the clusters will have many tasks to accomplish during the April cluster meetings, try to use your creativity so that this survey is completed and returned in April.

Thank you for your cooperation in this matter. We hope that this will be a valuable instrument in the future.

GMB:bac

Enclosures

INSTRUCTIONS FOR COMPLETING THE STUDENT SURVEY

Please respond to the items on this questionnaire by indicating your perception of how each best describes you. On the separate answer sheet blacken one of the numbers from one to five with a number two pencil. Consider the five point scale as a continuum from "least like you" to "most like you" with one being "least like you" and five being "most like you."

STUDENT SURVEY

1. I usually accomplish more than I had planned each day.
2. I am confident that once I have decided how to proceed, I will be successful.
3. I often initiate projects myself.
4. I always strive to do my best.
5. I accomplish the most when I prioritize my goals.
6. I achieve more when I work alone.
7. Once I review the facts, I have little trouble making a decision.
8. I am inquisitive about anything that I don't fully understand.
9. Others often praise me for my enthusiasm toward my work.
10. I realize that there are many ways to solve a problem.
11. The more I have to do, the more I accomplish.
12. Regardless of the difficulty of the task, I know I will succeed.
13. I often come up with new ideas.
14. When I stick with a project, I usually complete it.
15. When I arrive at work, I know what I will do first.
16. I am very good about sticking to time schedules.
17. I often take action to improve my institution or organization.
18. I often look for new ways to accomplish routine tasks.
19. I am always eager to start a new day at work.

20. I have unique ways of getting things done.
21. The greater the challenge, the more excited I am.
22. The greater the difficulty, the more I enjoy the task.
23. I have unique ways of accomplishing tasks.
24. I know if I try hard enough, I will succeed.
25. I rarely need more time to accomplish what I have planned to do.
26. I achieve more when I plan my time carefully.
27. When I must make a decision, I decide quickly.
28. I often wonder what is entailed in other peoples' projects.
29. I am always looking for new things to do on the job.
30. I know a lot of ways to cut through red-tape.
31. I like working on complex problems.
32. I know a great deal about how to manage my life.
33. People often seek my advice.
34. No matter how long it takes, I always finish the task.
35. When I identify my goals, I usually succeed.
36. I am succeeding because I want to succeed.
37. If given the opportunity, I can design creative solutions to problems.
38. Whenever I investigate a subject, I often gather more information than is necessary.
39. I am always excited about the various aspects of my work.
40. I feel as though I can find a solution to any problem.
41. I consistently plan projects to work on.
42. I rarely wait for approval before beginning a project.

43. People often depend on me for direction.
44. I attribute my overall success to persistent effort.
45. I never quit a project that I begin.
46. I am always working on personal development plans because the more I improve myself, the more I accomplish.
47. I attribute my success to effective decision making.
48. Whenever I find a solution to a problem, I wonder what alternative solutions may exist.
49. I am eager to complete as many projects as I can.
50. Whenever one solution fails, I generate another.
51. I have much ambition.
52. Among my colleagues I often am able to make the best decisions.
53. It rarely takes me more than a few minutes to generate alternatives to a problem.
54. I always work on a problem until I find a solution.
55. I always set achievable goals and quickly accomplish them.
56. The better that I manage the stress in my life, the more effective I can be as a person.
57. When I identify a more effective method to accomplish a task, I adopt it immediately.
58. I love to read in a number of subject areas.
59. I feel great when I start my day at work.
60. I always plan in advance for alternatives to any given problem/solution.

61. My work is never dull because I am constantly creating new projects.
62. I frequently succeed on projects that most others abandon.
63. Given the opportunity, I can design creative solutions to problems.
64. Once I start a project, it is difficult for me to stop.
65. I am constantly planning projects to work on and complete.
66. When I keep my energy level in balance every day, I feel terrific and accomplish much.
67. Whenever I am at a social gathering, I wonder what types of work various people do.
68. I put all of my energy into completing my work.
69. I expect to receive regular advances in my career.
70. I usually set achievable goals and quickly accomplish them.
71. I am constantly planning projects to work on.
72. Before I start a project, I know what I must do to complete it.
73. I often change my approach to any task once I have found a more effective solution.
74. I accomplish more each day than my colleagues do.
75. I believe that I can achieve, and as a result I do.
76. I usually find various ways to totally immerse myself in my work.
77. I know that I will be successful.
78. I require very little external motivation.
79. I fully enjoy my work and my life.

APPENDIX E

AATILS QUESTIONNAIRE (FINAL INSTRUMENT) AND INSTRUCTIONS FOR THE ADMINISTRATION OF THE ADULT ATTITUDES TOWARD INDEPENDENT LEARNING SCALE

AATILS QUESTIONNAIRE

Instructions: This questionnaire was designed to gather information on your attitudes toward learning in a variety of settings, eg., school, work, home, institution, etc. Please read each item, then indicate your perception of how each statement best describes you. The following choices are available:

1	2	3	4	5
Almost Never	Seldom	Sometimes	Often	Almost Always

Please give your responses on the answer sheet provided. It is important to blacken the entire box surrounding the number of your choice (1, 2, 3, 4, or 5) with a number two pencil. If you decide to change a response, erase completely.

Items:

1. I am succeeding because I want to succeed.
2. When I stick with a project, I usually complete it.
3. I believe that I can achieve, and as a result I do.
4. I attribute my success to effective decision making.
5. People often seek my advice.
6. I know that I will be successful.
7. No matter how long it takes, I always finish the task.
8. Regardless of the difficulty of the task, I know I will succeed.
9. I know a great deal about how to manage my life.
10. People often depend on me for direction.
11. I attribute my overall success to persistent effort.
12. I often take action to improve my institution or organization.
13. I am confident that once I have decided how to proceed, I will be successful.
14. Whenever one solution fails, I generate another.

(over)

1	2	3	4	5
Almost Never	Seldom	Sometimes	Often	Almost Always

15. Given the opportunity, I can design creative solutions to problems.

16. I know if I try hard enough, I will succeed.

17. I often come up with new ideas.

18. I accomplish the most when I prioritize my goals.

19. I frequently succeed on projects that most others abandon.

20. I often initiate projects myself.

21. Once I review the facts, I have little trouble making a decision.

22. I realize that there are many ways to solve a problem.

23. I am always working on personal development plans because the more I improve myself, the more I accomplish.

24. If given the opportunity, I can design creative solutions to problems.

25. I usually find various ways to totally immerse myself in my work.

26. I am inquisitive about anything that I don't fully understand.

27. I always work on a problem until I find a solution.

28. The more I have to do, the more I accomplish.

29. I usually set achievable goals and quickly accomplish them.

30. Among my friends or colleagues, I often am able to make the best decisions.

31. I always strive to do my best.

32. Others often praise me for my enthusiasm toward my work.

33. When I identify a more effective method to accomplish a task, I adopt it immediately.

1	2	3	4	5
Almost Never	Seldom	Sometimes	Often	Almost Always

34. I expect to receive regular advances in my career.

35. The greater the challenge, the more excited I am.

36. I require very little external motivation.

37. When I keep my energy level in balance every day, I feel terrific and accomplish much.

38. I have unique ways of accomplishing tasks.

39. I often look for new ways to accomplish routine tasks.

40. I never quit a project that I begin.

41. Once I start a project, it is difficult for me to stop.

42. I have much ambition.

43. I often change my approach to any task once I have found a more effective solution.

44. I achieve more when I plan my time carefully.

45. I accomplish more each day than my friends and colleagues do.

46. I feel as though I can find a solution to any problem.

47. I am very good about sticking to time schedules.

48. Whenever I investigate a subject, I often gather more information than is necessary.

49. I fully enjoy my work and my life.

50. The better that I manage the stress in my life, the more effective I can be as a person.

Thank you for your cooperation and have a great day!!

INSTRUCTIONS FOR THE ADMINISTRATION OF THE ADULT ATTITUDES TOWARD INDEPENDENT LEARNING SCALE

Since individuals vary in their ability to follow instructions, the subsequent suggestions will enhance this ability. The AATILS administrator will read aloud to the adults all directions enclosed in boxes.

When the adult participants and you are ready to begin the testing session, give one copy of the Adult Attitudes Toward Independent Learning Scale (AATILS), one answer sheet, and one number two pencil to each participant. When this is done, say:

> You should have received the AATILS questionnaire, and answer sheet, and a number two pencil. If you do not have each of these raise your hand.

(Pause for five seconds.)

When it is evident that all participants have the necessary materials, say:

> On the separate answer sheet turn to "Part 1" and print your full name, last name first, on the line provided. (Pause.) Now, place the answer sheet aside and turn to the instructions. (Pause.) Read the following instructions silently while I read them aloud.
>
> This questionnaire was designed to gather information on your attitudes toward learning in a variety of settings, eg., school, work, home institution, etc. Please read each item, then indicate your perception of how each statement best describes you. Please give your response to each statement on the separate answer sheet. As you consider each statement, evaluate it in terms of the following ratings.
>
> | 1 | 2 | 3 | 4 | 5 |
> |---|---|---|---|---|
> | Almost Never | Seldom | Sometimes | Often | Almost Always |

(over)

The questionnaire consists of 50 statements. Respond to each of the 50 statements on the separate answer sheet by blackening the entire box surrounding the number of your choice (1, 2, 3, 4, or 5). It is important that you blacken the entire box with a number two pencil. If you decide to change a response, erase completely.

If there are any questions, please raise your hand.

APPENDIX F

MEANS AND STANDARD DEVIATIONS OF THE INITIAL INSTRUMENT ITEMS

Means and Standard Deviations of the Initial Instrument Items

Question No.	Mean	Standard Deviation
1	3.21	1.17
2	4.30	.97
3	4.26	.93
4	4.39	.94
5	4.32	1.01
6	3.73	1.23
7	4.01	1.07
8	4.04	1.02
9	4.03	1.07
10	4.36	1.00
11	3.98	1.04
12	3.80	1.08
13	4.14	1.00
14	4.53	.90
15	3.94	1.13
16	3.57	1.16
17	4.18	.89
18	3.95	1.03
19	3.72	1.02
20	3.43	.97
21	3.89	.99
22	3.46	.96
23	3.43	.95

Question No.	Mean	Standard Deviation
24	4.21	1.00
25	3.18	1.16
26	4.07	1.09
27	3.77	1.10
28	3.24	1.12
29	3.61	1.00
30	3.56	1.01
31	3.81	.94
32	3.90	1.09
33	4.11	1.02
34	4.17	1.00
35	4.37	.91
36	4.31	1.00
37	4.12	.94
38	3.92	1.01
39	3.69	1.00
40	3.58	1.04
41	3.82	.97
42	3.46	1.16
43	4.02	1.03
44	4.43	.98
45	3.78	1.03
46	3.91	1.07
47	3.87	.91

Question No.	Mean	Standard Deviation
48	3.64	1.00
49	3.72	1.01
50	3.93	1.02
51	4.20	.97
52	3.75	.90
53	3.57	.90
54	3.92	.90
55	3.50	1.00
56	4.21	1.06
57	4.10	.98
58	3.82	1.33
59	3.78	1.11
60	3.51	.98
61	3.76	.94
62	3.60	.94
63	3.97	.96
64	3.92	.93
65	3.68	.94
66	4.01	1.03
67	3.59	1.26
68	3.74	1.00
69	4.14	1.00
70	3.77	.96
71	3.66	1.00

Question No.	Mean	Standard Deviation
72	3.66	.99
73	4.08	.92
74	3.78	1.00
75	4.28	1.03
76	3.78	1.04
77	4.26	1.06
78	3.95	1.08
79	4.10	1.02

APPENDIX G

NOVA UNIVERSITY PROGRAMS FOR HIGHER EDUCATION
PROFESSIONAL/PERSONAL/STUDENT
SELF-ASSESSMENT SKILL INSTRUMENT

NOVA UNIVERSITY PROGRAMS FOR HIGHER EDUCATION

PROFESSIONAL/PERSONAL/STUDENT SELF-ASSESSMENT

SKILL INSTRUMENT

Purpose: This self-assessment exercise is designed to create an awareness of independent (self-directed) learning skill competencies. The awareness of existing skill deficiencies in adults usually stimulates motivation on their part to refine those skills (Knowles, 1980). The competence and utilization of independent learner skills should facilitate the completion of the Ed.D. requirements in a timely manner. Students with low self-assessment skill ratings will be encouraged to set goals to develop such skills.

Directions: Please indicate your proficiency in the following skill areas by writing the appropriate number (1-5 with one indicating low competence and five indicating high competence) in the rating column. For this assessment to be meaningful, you must answer as frankly as possible.

1 2 3 4 5

LOW COMPETENCE HIGH COMPETENCE

Organizational skills	RATING COLUMN
1. Time Management	
2. Goal Setting	
3. Problem Solving	
4. Environmental Shaping	
5. Value Clarification	
6. Study and Research	
7. Personal Development Improvement Planning	
8. Student Resource Management	
Cognitive Orientation Skills	
9. Positive Thinking	
10. Active Orientation	
11. Procrastination Control	
12. Decision Making	
Interpersonal Skills	
13. Assertiveness	
14. Active Listening	
15. Team Building	
Wellness Skills	
16. Stress Management/Relaxation	
17. Human Energy Building	

APPENDIX H

PLAN OF ACTION

PLAN OF ACTION

Goal Must be Specific To be Measureable	Obstacles To Goal Accomplishment	Action Steps to Overcome Obstacles If you CAN'T DEFINE the action steps then the goal is NOT SPECIFIC ENOUGH.	Target Date When I Will Accomplish This	Rewards
Reaching this goal will lead toward the following longer-range goal:				
AFFIRMATION:				

(Completed Sample Goal Sheet)

PLAN OF ACTION

Goal Must be Specific To be Measureable	Obstacles To Goal Accomplishment	Action Steps to Overcome Obstacles If you CAN'T DEFINE the action steps then the goal is NOT SPECIFIC ENOUGH.	Target Date When I Will Accomplish This	Rewards
Become a good public speaker (Feb. 1, 1975) Target date: Feb. 1, 1976	1. Lack of Confidence. 2. Lack of experience 3. Lack of knowledge 4. Lack of training 5. Lack of audiences 6. Poor memory 7. Poor diction 8. Fear of audiences	1. Buy book on public Speaking 2. Read aloud in front of mirror (daily) 3. Give Committee reports at Jaycee meetings 4. Volunteer for Speak-Up Jaycee 5. Enroll in Dale Carnegie course 6. Use affirmations 7. Join Chamber of Commerce Speaker's Bureau 8. Enroll in night school course on Public speaking 9. Join Toastmasters 10. Participate in public debates 11. Study accomplished speakers	2/1/75 start 2/1/75 3/75 3/75 5/75 2/2/75 6/75 6/75 3/75 11/75 2/2/75	Accomplishment Pride Recognition Help others Extra Income: - new car (T Bird) - bigger house - Acapulco - Las Vegas - College for Kids - Investments Promotion Respect Feel good * * Is it worth it? YES !!!
Reaching this goal will lead toward the following longer-range goal Part-time income from speaking engagements				
AFFIRMATION: I am a good public speaker! I have an important message to communicate! I am at ease in front of groups! I am a good public speaker!				

APPENDIX I

STUDENT PROGRESS ON PRACTICUMS QUESTIONNAIRE

Nova University
CENTER FOR THE ADVANCEMENT OF EDUCATION
Programs for Higher Education
3301 College Avenue, Fort Lauderdale, Florida 33314 • 305/475-7380

MEMORANDUM

TO: Local Research Associates, MARP Advisors, National Lecturers, and Practicum Evaluators

FROM: George M. Barton GMB

DATE: December 22, 1986

SUBJECT: Student Progress on Practicums Questionnaire

We have just completed a study in the Programs for Higher Education concerning students' progress. It was found that at the end of two years in the program, the mean number of practicum proposals completed by all students was 2.07 and the mean number of practicums completed was 1.28. As you are aware, there are five practicum proposals and five practicums required.

We are particularly interested in why students, in general, are not moving ahead more rapidly on proposals and practicums. I would appreciate it if you would give this a few minutes thought and list below any reasons you are able to identify. Please do this as soon as possible and return it to me. I would like to have all responses no later than February 15, 1987.

Thank you for your cooperation since this is an important question that we would like to answer.

GMB:bac

H A P P Y H O L I D A Y S

APPENDIX J

PROGRAMS FOR HIGHER EDUCATION Ed.D.
SELF-MONITORING CHECK SHEET

PROGRAMS FOR HIGHER EDUCATION

Ed.D. SELF-MONITORING

CHECK SHEET

In order to comply with Nova University Programs for Higher Education graduation requirements, students must complete the following:

____1. Attend and pass five core seminars.

____a. Curriculum and Program Planning

____b. Governance and Management

____c. Applied Educational Research and Evaluation

____d. Learning Theory and Applications

____e. Societal Factors Affecting Education

____2. Attend and pass two specialization seminars in accordance with your particular area.

Specialization in Leadership in Adult Education

____a. History, Philosophy, and Practices of Adult Education

____b. Theory and Methods of Adult Education

or

Specialization in Higher Education

____a. Politics, Law, and Economics of Higher Education

____b. Emergence of Higher Education in America

or

Specialization in Vocational, Technical, Occupational Education

____a. Personnel - Human Resources Development

____b. Emergence of Vocational, Technical, Occupational Education in America

____3. Pass five practicums (list titles below)

____a. _____

____b. _____

____c. _____

____d. _____

____e. _____

____4. Successfully complete a MARP Proposal

____5. Successfully complete the MARP (write title below)

_____

____6. Attend two summer institutes (list year, city, and theme of each summer institute attended below)

____a. _____

____b. _____

____7. Submit an individualized evaluation

____8. Pass a General Comprehensive Examination

____9. Be current in all tuition and fees

NOTE: All requirements must be completed within seven years of the date of initial registration.

BIOGRAPHICAL SKETCH OF STUDENT

BIOGRAPHICAL SKETCH OF STUDENT

James Patrick Kole, born in Philadelphia, Pennsylvania, was educated in parochial schools. He graduated from St. Francis De Sales elementary school and the West Philadelphia Catholic High School. Following high school graduation, Mr. Kole, enrolled in the Community College of Philadelphia, and graduated in 1972 with an A.G.S., specializing in psychology and sociology. He graduated from The Pennsylvania State University with a B.S. in Human Development: Individual and Family Studies in 1974 and an M.Ed. in Counselor Education: College Student Personnel Services in 1975. He also became certified in Pennsylvania in 1976 as a secondary school counselor by taking additional course work at Penn State and by completing a one year counseling internship at Tyrone High School in Tyrone, Pennsylvania.

In 1976, Mr. Kole was employed as an Assistant to the Associate Vice President of Student Affairs at the Clarion University of Pennsylvania. His major responsibilities involved the administration of the residential life program.

In 1982, Mr. Kole became the Director of Guidance Services at the Venango Campus of Clarion University of Pennsylvania where he currently holds tenure as an Assistant Professor. Mr. Kole was offered (and accepted) a research

fellowship by the Programs for Higher Education of Nova University for the 1986-1987 academic year. Upon completing two presentations at the annual Programs for Higher Education Summer Institute in Tucson, Arizona, this July, Mr. Kole plans to return to Clarion University of Pennsylvania where he will resume his responsibilities as Director of Guidance Services.

I certify that I have read and am willing to sponsor this Major Applied Research Project submitted by James P. Kole. In my opinion it conforms to acceptable standards and is fully adequate in scope and quality as a Major Applied Research Project for the degree of Doctor of Education at Nova University.

Nov 12, 1987
(date)

John M. Flynn, Ed.D.
MARP Advisor

I certify that I have read this Major Applied Research Project and in my opinion it conforms to acceptable standards for a Major Applied Research Project for the degree of Doctor of Education at Nova University.

Oct. 21, 1987
(date)

Al Mizell, Ed.D.
Local Committee Member

This Major Applied Research Project was submitted to the Central Staff of the Programs for Higher Education of Nova University and is acceptable as partial fulfillment of the requirements for the degree of Doctor of Education.

11/13/87
(date)

Ross E. Moreton, Ed.D.
Central Staff Committee Member